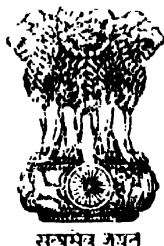








**REPORT**  
**ON**  
**SURVEY OF LABOUR CONDITIONS**  
**IN**  
**IRON ORE MINING INDUSTRY**  
**IN INDIA**  
**1962-63**



**LABOUR BUREAU**  
**MINISTRY OF LABOUR, EMPLOYMENT AND REHABILITATION**  
**GOVERNMENT OF INDIA**

## PUBLISHED REPORTS ON SURVEY OF LABOUR CONDITIONS

Serial No.	Symbol	Title of the Report	Year of Publication	Price Rs. P.
1	2	3	4	5
1	DLB-41/1000	Report on Survey of Labour Conditions in Silk Factories in India.	1964	5-50 or 12 Sh. 10 d. or 1 \$ 98 cents.
2	DLB-46/1000	Report on Survey of Labour Conditions in Woollen Factories in India.	1964	3-60 or 8 Sh. 5 d. or 1 \$ 30 cents.
3	DLB-45/850	Report on Survey of Labour Conditions in Agricultural Implements Factories in India.	1964	3-20 or 7 Sh. 6 d. or 1 \$ 16 cents.
4	DLB-53/1050	Report on Survey of Labour Conditions in Machine Tool Factories in India.	1965	4-20 or 9 Sh. 10 d. or 1 \$ 52 cents.
5	DLB-56/850	Report on Survey of Labour Conditions in Bicycle Factories in India.	1965	3-55 or 8 Sh. 4 d. or 1 \$ 28 cents.
6	DLB-55/960	Report on Survey of Labour Conditions in Bolts, Nuts, Nails, Springs and Chains Factories in India.	1965	3-85 or 9 Sh. or 1 \$ 59 cents.
7	DLB-69/800	Report on Survey of Labour Conditions in Electrical Machinery Factories in India	1965	3-00 or 7 Sh. or 1 \$ 8 cents.
8	DLB-71/800	Report on Survey of Labour Conditions in Textile Machinery and Accessories Manufacturing Factories in India.	1965	2-80 or 6 Sh. 7 d. or \$ 1 cent.
9	DLB-61/950	Report on Survey of Labour Conditions in Cement Factories in India.	1965	3-20 or 7 Sh. 6 d. or 1 \$ 16 cents.
10	DLB-60/800	Report on Survey of Labour Conditions in Rubber Plantations in India.	1965	4-40 or 10 Sh. 1 d. or 1 \$ 59 cents.
11	DLB-62/800	Report on Survey of Labour Conditions in Metal Extracting and Refining Factories in India.	1965	4-20 or 9 Sh. 10 d. or 1 \$ 52 cents.
12	DLB-68/800	Report on Survey of Labour Conditions in Metal Founding Factories in India.	1966	3-15 or 7 Sh. 5 d. or 1 \$ 14 cents.
13	DLB-70/950	Report on Survey of Labour Conditions in Motor Vehicles Manufacturing and Repairing Factories in India.	1966	4-00 or 9 Sh. 4 d. or 1 \$ 44 cents.
14	DLB-87,800	Report on Survey of Labour Conditions in Railway Workshops in India.	1966	3-15 or 7 Sh. 5 d. or 1 \$ 14 cents.

## CONTENTS

<b>Preface</b> .. .. .	<b>Page</b> <b>iii</b>
<b>CHAPTER I—INTRODUCTION</b>	
<b>Introduction</b> .. .. .	1
<b>CHAPTER II—EMPLOYMENT</b>	
<b>Composition of the Working Force</b> .. .. .	6
<b>Distribution of the Working Force According to Sex</b> .. .. .	7
<b>Employment of Women</b> .. .. .	7
<b>Child Labour</b> .. .. .	8
<b>Time and Piece-rated Workers</b> .. .. .	8
<b>Contract Labour</b> .. .. .	9
<b>Employment Status</b> .. .. .	10
<b>Length of Service</b> .. .. .	11
<b>Absenteeism</b> .. .. .	12
<b>Labour Turnover</b> .. .. .	13
<b>Recruitment</b> .. .. .	16
<b>Regulation of Employment of Casual Labour</b> .. .. .	16
<b>Training and Apprenticeship</b> .. .. .	16
<b>CHAPTER III—WAGES AND EARNINGS</b>	
<b>Wage Revision</b> .. .. .	17
<b>Pay Periods</b> .. .. .	18
<b>Average Daily Earnings : All Workers, Production Workers, Lowest Paid Workers, Clerical and Related Workers and Watch and Ward and Other Services</b> .. .. .	18
<b>Components of Earnings</b> .. .. .	21
<b>Bonus</b> .. .. .	24
<b>Fines and Deductions</b> .. .. .	25
<b>CHAPTER IV—WORKING CONDITIONS</b>	
<b>Shifts</b> .. .. .	26
<b>Hours of Work</b> .. .. .	26
<b>Conservancy</b> .. .. .	28
<b>Leave and Holidays : Earned Leave, Sick Leave, Casual Leave, National and Festival Holidays, Furlough Leave and Weekly off</b> .. .. .	29
<b>CHAPTER V—WELFARE AND AMENITIES</b>	
<b>(a) Obligatory —</b>	
<b>Drinking Water Facilities</b> .. .. .	33
<b>Washing Facilities</b> .. .. .	34
<b>Bathing Facilities</b> .. .. .	34
<b>Canteens</b> .. .. .	34
<b>Croches</b> .. .. .	34
<b>Lockers</b> .. .. .	35
<b>Rest Shelters</b> .. .. .	35
<b>Medical Facilities</b> .. .. .	35
<b>(b) Non-Obligatory—</b>	
<b>Recreation Facilities</b> .. .. .	37
<b>Educational Facilities</b> .. .. .	38
<b>Adult Education</b> .. .. .	38
<b>Other Facilities</b> .. .. .	38
<b>Transport Facilities</b> .. .. .	38
<b>Housing</b> .. .. .	38

	Page
<b>CHAPTER VI—SOCIAL SECURITY</b>	
Provident Fund .. .. .	40
Pension .. .. .	41
Gratuity .. .. .	41
Maternity Benefits .. .. .	42
Industrial Accidents .. .. .	43
Occupational Diseases .. .. .	43
<b>CHAPTER VII—INDUSTRIAL RELATIONS</b>	
Industrial Disputes .. .. .	44
Trade Unionism .. .. .	44
Agreements .. .. .	46
Standing Orders .. .. .	46
Welfare Officers .. .. .	46
Works Committees .. .. .	46
Other Committees .. .. .	47
Grievance Procedure .. .. .	47
<b>CHAPTER VIII—LABOUR COST</b>	
Labour Cost Per Man-day Worked .. .. .	49
Components of Labour Cost : Wages, Premium Pay for Overtime and Late Shifts, Bonuses, Other Cash Payments, Payments in Kind, Social Security Contributions, Subsidies, Direct Benefits and Other Payments Related to Labour Cost ..	49
<b>CHAPTER IX—SUMMARY OF CONCLUSIONS</b>	
Summary of Conclusions .. .. .	55
Appendix I—A Brief Note on the Sample Design and the Method of Estimation Adopted .. .. .	60

## PREFACE

Industrial labour and its problems have been the subject of interest, though varying in degree and extent, ever since India entered the industrial field over a century ago. Today this interest has shifted from prevention of exploitation of labour to providing a fair deal and opportunities for a fuller life to labour. The growing realisation of this approach to problems of labour in India, in the context of present day planned economic development of the country, is provided a sound base by the surveys that reveal true conditions of labour.

The last detailed Survey, on a country-wide basis, of the working and living conditions of industrial labour was conducted by the Labour Investigation Committee appointed by the Government of India in 1944. The years that followed witnessed far-reaching changes in the set up of the country, its basic policies and national objectives. As a result, the long-term strategy for economic and industrial advance recognises the well-being of the working class as an essential factor in the overall stability and progress of the country. The adoption of this policy, in the changed circumstances of the country, has brought about a new awakening in the ranks of labour and afforded them much relief in various directions through legislation and other measures.

In order to assess the impact of these measures on the industrial labour and to appraise their present conditions, a scheme for a comprehensive Survey of Labour Conditions was incorporated in the Second Five Year Plan and its execution was entrusted to the Labour Bureau. The Survey was conducted according to a phased programme in 46 industries.\* This report presents data regarding Iron Ore Mines covered under the Scheme during 1962-63.

The present Survey differs considerably from similar investigations in the past in the matters of design, scope and presentation of data. It has also certain distinguishing features. For example, it furnishes data separately for large and small establishments in various industries, makes a limited study of labour cost in relation to the benefits and amenities that the workers now enjoy, seeks to fill the gap in the statistics of labour turnover and absenteeism in various industries and provides first-hand information on certain important aspects of labour-management relations. Attempt has also been made to collect and interpret data on certain conventional items in a more meaningful way. In the presentation of the data the effort has been to reduce the information into quantitative terms so as to serve as a bench-mark for purpose of evaluation of changes at a future date. Recourse to general description has been resorted to only where the other type of treatment was not possible.

In a Survey of this magnitude it was but natural that many problems had to be faced both in planning as well as execution. Most of these flowed from non-availability of up-to-date frames and absence or improper maintenance of records in many establishments. In many cases the field staff had almost to build up the required statistics from various sources. This naturally imposed a

\*The names of 46 industries are given in the preface (p.ii) attached to the Report on Survey of Labour Conditions in Silk Factories in India.



heavy demand on the managements and the Bureau is deeply indebted to them for their whole-hearted co-operation. The co-operation and valuable assistance received from associations of employers and workers, Chief Labour Commissioner (Central), Chief Inspector of Mines and their officials is also gratefully acknowledged.

The debt of gratitude that I owe to the Central Statistical Organisation and the Chief Adviser of Factories for evincing keen interest in the Survey and rendering technical advice on various matters is indeed great. I am also thankful to the Employment Division of the Planning Commission for examining the schedule and instructions and offering useful suggestions. I am equally grateful to the Bureau of Labor Statistics, U.S.A., Social Surveys Division, Ministry of Labour and Social Service, U.K., Economics and Research Branch, Department of Labour, Canada and Labour Statistics and Research Division, Ministry of Labour, Japan, whose advice was sought on several technical matters.

The primary responsibility for conducting this Survey and bringing out the reports on individual industries was ably borne by Shri B. N. Srivastava, Deputy Director, whose experience and application came into full play in this assignment. On various statistical problems arising out of the Survey, the requisite technical advice was provided by other officers at Headquarters. In the drafting of the report, he received valuable assistance from Shri K. Lakshminarayanan, Research Officer. Sarvashri Krishan Kumar Sharma, A. K. Minocha, Punu Ram Sharma and K. C. Sharma, Computers assisted in computation of data. The field investigations were carried out by Sarvashri S. J. Balasubramanian, K. V. Vasudevan, R. P. Kapoor, R. V. Venkatachalam, N. C. Gupta, V. Jayaraman, H. C. Bharti and R. N. Khera under the supervision of Sarvashri J. N. Agarwal, Research Officer, S. Vaidyanathan, K. L. Lamba and G. N. Nagar. To them all my thanks are due.

The views expressed in this Report are not those of the Ministry of Labour, Employment and Rehabilitation (Department of Labour and Employment), Government of India.

K. C. SEAL

*Director*

LABOUR BUREAU, SIMLA

*Dated the 22nd October, 1965*

## CHAPTER I

### INTRODUCTION

The development of the Iron Ore Mining Industry in India is of recent origin. The Labour Investigation Committee which conducted an enquiry into this industry have not given any statistics regarding the total number of iron ore mines in the country at the time of their enquiry. They, however, estimated that the number of persons employed in the industry in 1943 was in the neighbourhood of 16,000. Statistics published by the Chief Inspector of Mines, Government of India indicate that there has been considerable expansion of the industry since Independence of the country. The following Statement 1·1 gives details regarding the number of iron ore mines and the average daily number of workers employed therein.

#### STATEMENT 1·1

*Number of Iron Ore Mines and Average Daily Number of Workers Employed therein in 1947, 1951, 1956—1961*

Year							No. of Mines	Average daily employment (in thousands)
(1)							(2)	(3)
1947	..	..	..	..	..	..	4*	15·4
1951	..	..	..	..	..	..	34	20·2
1956	..	..	..	..	..	..	140	37·3
1957	..	..	..	..	..	..	161	40·3
1958	..	..	..	..	..	..	156	43·2
1959	..	..	..	..	..	..	151	41·5
1960	..	..	..	..	..	..	213	49·9
1961	..	..	..	..	..	..	225	51·5

\*Relates to Bihar only. For other States information was not available.

Source : Annual Reports of the Chief Inspector of Mines.

The significant expansion, both from the point of view of number of mines as well as the number of workers employed in the industry since the Independence of the country, is mainly due to the increasing export of iron ore and considerable development of the iron and steel industry of the country. In 1949-50† India's export of iron ore was valued at Rs. 32 thousand whereas in 1964-65 it was worth Rs. 37·4 crores. Iron ore is now an important foreign exchange earner. Besides meeting the needs of foreign export, iron ore is now in much greater demand on account of setting up of three new large steel plants and expansion of the old ones.

†Source—Statistical Abstract of India, 1950—P 780.

### 1.1. Location of the Industry

The industry is mainly concentrated in Orissa, Bihar and Mysore although there are a few pockets in Andhra Pradesh, Maharashtra and Rajasthan. The following Statement 1.2 shows State-wise distribution of iron ore mines and total employment therein—

STATEMENT 1.2

*Distribution of Iron Ore Mines and Average Daily Employment therein in the Different States--1961*

Serial No.	State						Number of mines*	Average daily employment
(1)	(2)						(3)	(4)
1	Andhra Pradesh	..	..	..	..		27	2,177 (4.0)
2	Bihar	..	..	—	..	..	32	10,675 (19.6)
3	Madhya Pradesh	..	..	..	..		3	11,060 (20.3)
4	Maharashtra	..	..	..	..	..	9	2,805 (5.1)
5	Mysore	—	..	..	..	..	101	6,351 (11.6)
6	Orissa	..	..	..	..	..	44	20,742 (38.0)
7	Punjab	..	..	—	—	—	1	91 (0.2)
8	Rajasthan	..	—	—	—	—	8	639 (1.2)
Total for the Indian Union						..	225	54,540 (100.0)

Source—Annual Report of the Chief Inspector of Mines for the year ending 31st December, 1961.

\*Relates to mines registered under the Mines Act, 1952 only.

NOTE—Figures in brackets are percentages to total employment.

It may be stated that large mines which were well organised were mostly located in Orissa and Bihar. Both these centres together accounted for nearly 58 per cent. of the total number of workers employed in this industry in 1961. The entire working force is engaged on opencast and surface operations only there being practically no underground operations in the industry.

## 1.2. *Genesis of the Survey*

The first comprehensive survey of conditions of labour in various industries in India on a country-wide basis was conducted by the Royal Commission on Labour during 1929-31. Their report and findings formed the basis of various ameliorative measures. After a lapse of over a decade, i.e., in 1944, the Government of India appointed another Committee, viz., the Labour Investigation Committee to enquire into the conditions of labour in all important industries. The Committee conducted detailed investigations in 38 industries, including the Iron Ore Mining Industry, during 1944-45 and, besides a main report on labour conditions in general, published individual reports in respect of various industries. These reports provided valuable material for the formulation of labour policy. The years that followed witnessed many changes of far-reaching significance. For instance, many legislative measures were adopted to improve working and living conditions and several schemes were introduced for promoting welfare and social security of workers. The setting up of the adjudication machinery also led to improvement in conditions of work and wages in various industries. Above all, the attainment of Independence by the country gave a new status to the working classes. In view of these developments, the Ministry of Labour and Employment as well as the Planning Commission considered it necessary that a fresh comprehensive survey of labour conditions in various industries should be conducted so that it may be possible to assess the effects of the various measures and obtain a precise picture of the existing conditions and problems of labour for purposes of deciding future course of action. Accordingly, a scheme for the conduct of a Survey of Labour Conditions was included in the Second Five Year Plan and the Labour Bureau was entrusted with the execution of the scheme.

## 1.3. *Scope and Design*

A note appended to the Report (Appendix I) gives details relating to the sample design and method of estimation adopted. The Survey was confined to establishments covered under the Mines Act, 1952. For purposes of the Survey, the country was divided into 5 regional strata (called as centres in the subsequent chapters) on the basis of concentration of the industry and these were (1) Andhra Pradesh, (2) Bihar, (3) Mysore, (4) Orissa and (5) the Residual Group consisting of all scattered mines in the various other States.\*

The experience of the Bureau has been that in many aspects the conditions of workers employed in large establishments differ from those employed in smaller ones. To facilitate examination of differences and peculiarities of workers engaged in small iron ore mines *vis-a-vis* large mines, it was decided to divide mines in each regional stratum into two size groups. The cut off point used for this purpose was the average daily employment of the iron ore mines in the country as a whole. This number was 310 for the year 1958. Thus, all the mines employing more than 310 persons were treated as large mines and the rest as small ones. It was felt that a sample of 25 per cent. of large mines and 12.5 per cent. of small mines would yield reliable results. But in order to safeguard against possible shrinkage due to closures, change in the line of produc-

---

\*Madhya Pradesh and Maharashtra were not given separate representation as at the time when the frame was prepared there were only 6 and 8 mines in the two States respectively employing in all 1,775 and 2,152 workers respectively.

tion of the establishments, etc., it was decided that a sample of 33·3 per cent. of the large mines and 25 per cent. of the small mines should be taken. The following Statement 1·3 gives the number of iron ore mines together with the number of workers employed therein (a) in the frame, (b) in the samples, and (c) in samples actually covered.

### STATEMENT 1·3

*Number of Iron Ore Mines and Persons Employed therein in the Frame and As Covered by the Survey*

Regional Stratum (Centre)	In the frame (1958)		Samples selected		In the sample ultimately covered	
	Number of mines	Number of workers employed	Number of mines	Number of workers employed	Number of mines	Number of workers employed
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Andhra Pradesh ..	22	1,565	7	347	1 (4·55)	90 (5·75)
2. Bihar .. ..	18	12,171	5	3,123	5 (27·78)	3,123 (25·66)
3. Mysore .. ..	42	5,763	11	1,269	5 (11·90)	1,073 (18·62)
4. Orissa .. ..	37	16,954	10	5,469	5 (13·51)	3,635 (21·44)
5. Residual .. ..	27	5,392	7	1,877	4 (14·81)	1,761 (32·66)
6. All India .. ..	46	41,845	40	12,076	20 (13·70)	9,682 (23·14)

NOTE—(1) Figures in brackets in Col. (6) and (7) are percentages to totals in Col. (2) and (3) respectively.

(2) Figures in Cols. (2) and (3) may not tally with similar figures in Statement 1·1 because these figures relate to list of mines available at the time of drawing the frame, whereas Statement 1·1 contains final figures.

It will be seen that out of the sampled units selected (vide col. (4)) 50 per cent. of the units were either found closed or reported to have changed their line of production, i.e., had switched over from extraction of iron ore to mining of manganese. The closure rate was particularly very high in the case of small mines. Thus, the Survey actually covered about 14 per cent. of the total number of mines accounting for nearly 23 per cent. of the total employment in the industry. Since only those mines which featured in the frame were included in the sample and as it was not possible to take account of new mines which came into being during the period of the Survey, the information given in this Report should be treated to relate to conditions in iron ore mines which were in existence during the period to which the frame related and which continued to exist till the time of the Survey.

In view of the very high rate of closure of small mines, samples actually covered were found to be too few to give reliable information separately in respect of large and small mines. Hence, separate data are not being given in the

report for the two size groups. Similarly, as all, except one sampled mine in Andhra Pradesh, were found closed at the time of the Survey, separate statistics for the Andhra Pradesh stratum are not being given but the statistics relating to these units have been merged with the Residual Stratum.

The data were collected in a specially designed schedule\* by personal visits of the staff of the Bureau. With a view to testing the schedule and the instructions prepared for the Survey, as also to impart training to the field staff, a pilot enquiry was conducted. On the basis of the experience of the enquiry, the schedule and instructions were suitably revised. The main field enquiry was launched in October, 1962 and completed in September, 1963. Since the enquiry in essence was during 1962-63, the data, except where specifically mentioned, should be treated to relate to this period.

Iron ore mines were covered by the Labour Investigation Committee in the course of their enquiry of mining industries. With a view to indicating the developments and the changes which have taken place since then some remarks have been given in this Report regarding the position at the time of the Committee's enquiry and the present Survey. Since there are differences in the scope of the previous enquiry and this Survey, comparisons, wherever made, can be treated to be only broadly valid.

\*The schedule was the same as used for other industries, a copy of which has been published as an appendix to the Report on Survey of Labour Conditions in Silk Factories in India. Only some minor changes were made to collect some more details relevant to mining industries.

## CHAPTER II

### EMPLOYMENT

From the point of view of employment, the Iron Ore Mining Industry ranks third among mining industries of India. The Labour Investigation Committee estimated the employment of this industry to be in the neighbourhood of 16 thousand in 1943. In 1961, the latest year for which detailed information is available, there were nearly 54·5\* thousand workers in the industry.

#### 2·1. *Composition of the Working Force*

With a view to maintaining comparability as also uniformity, statistics pertaining to employment in iron ore mines, were collected for a fixed date i.e., 30th June, 1962 from all the sampled mines. It is estimated that on this date the total number of persons employed in the industry was about 32 thousand. Statement 2·1 shows the distribution of employees by broad occupational groups in various centres. The broad occupational groups were : (1) professional, technical and related personnel, (2) administrative, executive, and managerial personnel, (3) clerical and related workers (including supervisory), (4) production and related workers (including supervisory) employed directly as well as those engaged through contractors, and (5) watch and ward and other services. The classification was based on the "International Standard Classification of Occupations" as adopted by the International Labour Office.

#### STATEMENT 2·1

#### *Estimated Distribution of Workers by Broad Occupational Groups—June 1962*

Centre	Number of Workers					Total
	Professional, Technical and Related Personnel	Administrative, Executive and Managerial Personnel	Clerical and Related Workers (including Supervisory)	Production and Related Workers (including Supervisory)	Watch and Ward and Other Services	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar .. ..	187 (5·6)	23 (0·3)	251 (2·9)	5,922 (68·3)	1,984 (22·9)	8,667 (100·0)
2. Mysore .. ..	15 (0·4)	17 (0·4)	46 (1·1)	3,319 (81·4)	679 (16·7)	4,076 (100·0)
3. Orissa .. ..	101 (0·7)	37 (0·3)	203 (1·4)	12,933 (91·7)	835 (5·9)	14,109 (100·0)
4. Residual .. ..	15 (0·3)	29 (0·6)	74 (1·5)	4,595 (91·5)	305 (6·1)	5,018 (100·0)
5. All India .. ..	618 (1·9)	106 (0·3)	574 (1·8)	26,769 (84·1)	3,803 (11·9)	31,870 (100·0)

NOTE—Figures in brackets are percentages to the total employment of the respective centres

\* Source—Annual Report of the Chief Inspector of Mines for the year 1961.

From the point of view of total number of persons employed, Orissa was the first among various individual pockets of concentration accounting for about 14 thousand workers or about 44 per cent. of the total number of employees in the industry as a whole. Bihar was next in the order with nearly 9 thousand persons or (27%) followed by Mysore (13%). There were 5 thousand (or 16%) persons in the various centres included in the Residual Group.

Statistics of employees in different broad occupational groups show that the bulk of the working force was 'Production and Related Workers (including supervisory)' accounting for nearly 84 per cent. of the estimated total working force in the industry. The percentage of production workers varied as between the different centres.

Next to production workers, persons engaged for the watch and ward and other related work constituted about 12 per cent. of the total working force. Persons in other groups accounted for the rest.

Information collected during the course of the Survey relating to workers 'covered' and 'not covered' under the Mines Act indicates that all the persons employed in the iron ore mines in the different centres were covered under the Mines Act, 1952.

## 2.2. *Distribution of the Working Force According to Sex*

Data collected during the Survey regarding the distribution of workers according to sex indicate that out of the estimated total working force of 31.9 thousand in the industry as a whole, men accounted for 23.9 thousand or 75 per cent. and the rest (i.e., 25%) were women. The following Statement gives details for the different centres.

### STATEMENT 2.2

#### *Distribution of the Working Force According to Sex—June, 1962*

Centre				Estimated number of workers	Estimated number of	
					Men	Women
(1)				(2)	(3)	(4)
1. Bihar	..	..	..	8,667	6,752 (77.9)	1,915 (22.1)
2. Mysore	..	..	..	4,076	3,074 (75.4)	1,002 (24.6)
3. Orissa	..	..	..	14,109	9,527 (67.5)	4,582 (32.5)
4. Residual	..	..	..	5,018	4,543 (90.5)	475 (9.5)
5. All India	..	..	..	31,870	23,896 (75.0)	7,974 (25.0)

NOTE—Figures in brackets are percentages to total in col. (2).

## 2.3. *Employment of Women*

In the industry in the country as a whole, women were found to be employed in about 94 per cent. of the mines. As regards individual centres of concentration, all the units in Orissa and Mysore employed women, while in Bihar and the Residual centres, the percentage was 58 and 24 respectively. It will be



seen from the above Statement that the proportion of women workers to total was the highest (32.5%) in Orissa followed by Mysore (24.6%) and Bihar (22.1%). Employment of women was the lowest (9.5%) in the Residual Group.

Women were generally engaged for carrying the ore from the place where it was extracted to the place of storage. They also assisted men workers in extracting the iron ore. Other jobs on which women were engaged were, creche *Ayaks*, teachers, sweepers, mid-wives, etc. The main reasons adduced by the managements for employing women workers were generally as follows: --

- (i) The work in the mines is generally piece-rated and entrusted to gangs consisting of 2 or more workers. The male workers prefer to have their wives or other female relatives so that they can earn for the family as a whole.
- (ii) Employment of women continues as a tradition.
- (iii) In some centres (e.g., Keonjhar in Orissa) men do not like to carry head-loads and hence women have to be employed for such work.
- (iv) Scarcity of labour in certain areas e.g., Orissa also necessitates the employment of women.
- (v) Lower wages of women as compared to men.
- (vi) For certain jobs like creche *ayaks* and midwives only women could be employed.

#### 2.4. Child Labour

The system of employing children was not in vogue in any of the sampled units in the industry.

#### 2.5. Time and Piece-rated Workers

Both the systems of payment, viz., time-rate as well as piece-rate were found to be prevalent in the industry. The following Statement 2.3 shows the proportion of production workers according to time and piece-rates.

STATEMENT 2.3

*Distribution of Production Workers According to Mode of Payment - June, 1962*

Centro	Workers directly employed			Workers engaged through contractors			Total		
	Esti- mated number of workers	Percentage of workers who were		Esti- mated number of workers	Estimated percentage of workers who were		Estima- ted number of workers	Estimated percentage of workers who were	
		Time- rated	Piec- e-rated		Time- rated	Piec- e-rated		Time- rated	Piec- e-rated
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Bihar ..	3,753	80.0	20.0	2,169	35.9	64.1	5,922	63.8	36.2
2. Mysore	1,247	53.5	46.5	2,072	93.8	6.2	3,319	78.7	21.3
3. Orissa ..	5,327	34.1	65.9	7,606	10.1	89.9	12,933	20.0	80.0
4. Residual	1,547	80.7	19.3	3,048	51.9	48.1	4,595	61.6	38.4
5. All India	11,874	56.7	43.3	14,895	34.0	66.0	26,769	44.1	55.9

In the industry as a whole nearly 56 per cent. of the total production workers were piece-rated and the rest were paid on time-rates. In Bihar as well as Mysore, bulk of production workers were time-rated whereas in Orissa reverse was the case. However, a notable feature in Bihar was that though four-fifths of directly employed production workers were time-rated, so far as workers employed by contractors were concerned they were mostly piece-rated. In fact, except for Mysore and mines in the Residual Group, everywhere a large majority of contract labour were paid on piece-rate basis.

## 2.6. Contract Labour

One of the characteristic features of the pattern of employment in the Iron Ore Mining Industry is the Employment of contract labour even for regular jobs of the various mining operations. The Labour Investigation Committee also discussed the evils of the contract system of work in the industry and remarked that the 'system has led to serious abuses of which underpayment of wages, miserable housing, sweating conditions of work, disregard of the provisions of the labour laws are the chief'.\* The Committee opined that the legal abolition of the contract system would improve the lot of the workers. At the time of the present Survey also the system of employing workers through contractors was widely prevalent in all the centres. It is estimated that in the country as a whole nearly 56 per cent. of the mines employed such workers. The proportion of mines employing contract labour varied from centre to centre but no where it was less than one-third. Such workers formed 37 per cent. (Bihar) to 66 per cent. (Residual Group) of the total production workers in the different centres. In the industry as a whole they constituted 55.6 per cent. of the total production workers. The following Statement 2.4 gives the details.

### STATEMENT 2.4

#### *Proportion of Units Employing Contract Labour in the Iron Ore Mining Industry 1962-63*

Centre	Number of mines	Percentage of units employing contract labour	Estimated total number of production workers	Estimated number of contract labour
(1)	(2)	(3)	(4)	(5)
1. Bihar .. ..	13	76.5	5,922	2,169 (36.6)
2. Mysore .. ..	26	33.6	2,319	2,072 (62.4)
3. Orissa .. ..	23	84.8	12,933	7,606 (58.8)
4. Residual .. ..	24	62.5	4,595	3,048 (66.3)
5. All-India .. ..	86@	55.8	26,769	14,895 (55.6)

NOTE—Figures in brackets are percentages to total in col. (4).

\*Report on Labour Conditions in Iron Ore Industry by B.P. Adarkar, p. 22.

@ The figure differs from Statement 1.3 for reasons given at Page 4.

Information obtained during the course of the Survey shows that contract labour was engaged for almost all the mining operations such as ore raising, stacking, sorting, grading, loading, screening, mucking, drilling, etc.

As regards the reasons for employing contract labour in preference to departmental labour, various views were expressed by managements in the different centres. They were generally as follows :—

- (i) Employment of contract labour is being continued as a tradition (special reasons for Orissa only).
- (ii) Shortage of labour and high cost of recruitment.
- (iii) The demand for iron ore is not stable and the requirement of labour fluctuates. To avoid retrenchment, the managements prefer to contractor to take the responsibility of bringing labour so that there would not be any botheration for the managements.
- (iv) Raising of ore is generally done on piece-rates and the job requires close supervision. The contractor can do it best.
- (v) The system reduces the overall cost of production.
- (vi) Contractors have a close contact with the working population and hence they are able to ensure a steady supply of labour to the mines.

## 2.7. *Employment Status*

The Labour Investigation Committee reported that in the three major centres in Bihar and Orissa surveyed by them the workers (direct labour) were classified as permanent and temporary in accordance with the service rules of the concerned companies. No classification was reported to exist for contract labour. During the course of the Survey information was collected on employment status of production workers employed directly by the managements (i.e., excluding those employed through contractors) and the results are summarised in Statement 2.5. No information could be collected in respect of workers employed through contractors as generally no records were available or the records were found to be maintained improperly. Moreover, contractors changed quite frequently.

It may be mentioned here that classification of workers into permanent, temporary, etc., is regulated by the Standing Orders framed by the managements in pursuance of the Industrial Employment (Standing Orders) Act, 1946. However, since this Act requires only those employers who employ 10 or more workers to frame Standing Orders, all the mines had not framed Standing Orders. In units where there were no standing orders, the information relating to employment status was collected on the basis of the version of the managements.

## STATEMENT 2-5

*Distribution of Production Workers (Employed Direct) by Employment Status—  
June, 1962*

Centre			Estimated number of production workers employed direct	Estimated Percentage of workers who were			Apprentices and others
				Perma- nent	Tempo- rary	Casual	
(1)			(2)	(3)	(4)	(5)	(6)
1. Bihar	..	..	3,753	93.1	6.9	..	..
2. Mysore	..	..	1,247	14.4	1.1	84.5	..
3. Orissa	..	..	5,327	51.8	48.2	..	..
4. Residual	..	..	1,547	55.7	44.3	..	..
5. All India	..	..	11,874	61.4	29.7	8.9	..

It will be seen from Statement 2-5 that workers who were classified as permanent accounted for about 61 per cent., the remaining being temporary (30%) and casual (9%). The system of employing *balli* labour was entirely absent in the industry. The proportion of permanent workers was the highest (93%) in Bihar and it was the lowest in Mysore. In Mysore, 84.5 per cent. of the workers were casual, the chief reason adduced by the management was that workers did not stick to the jobs and during the months when there were agricultural operations and religious/social functions (e.g., marriages), they left the units. This contention of management seems to be incorrect as the labour turnover rate was the lowest in Mysore as compared to other centres. It seems that workers were deliberately treated as casuals. In all other centres, no casual labour was reported and workers were classified either as permanent or temporary.

## 2-8. Length of Service

The Labour Investigation Committee, on the basis of such statistics as were available to them at that time, reported the predominance of workers (company labour only) in the service group 'less than one year' and 'one year and one and 5 years'. Data collected during the course of the Survey regarding the length of service of 'production and related workers (including supervisory)' employed directly by the managements (i.e., excluding contract labour) in the different centres are given in the following Statement 2-6.

## STATEMENT 2-6

*Distribution of Production Workers Employed Direct According to Length of  
Service—June, 1962*

Centre			Estimated number of production workers	Estimated Percentage of workers with a service of				
				Less than 1 year	1 or more but less than 5 years	5 or more but less than 10 years	10 or more but less than 15 years	Over 15 years
(1)			(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar	..	..	3,753	6.8	27.2	42.1	12.3	11.6
2. Mysore	..	..	1,247	85.4	9.4	2.0	1.6	1.6
3. Orissa	..	..	5,327	50.2	39.6	9.2	0.5	0.5
4. Residual	..	..	1,547	67.0	30.9	2.1	..	..
5. All India	..	..	11,874	42.4	30.1	17.9	4.3	5.3

Except in Bihar, the proportion of workers in the service group 'less than one year' constituted the bulk of the working force. In the country as a whole, the largest single group had only less than one year's service accounting for nearly 42 per cent. of the total production workers. In Bihar, however, persons having a service of 5 or more but less than 10 years' accounted for nearly 42 per cent. of the total production workers in that centre. Presumably it is due to the fact that mines in Bihar were all organised and controlled by well established concerns and had been in existence since long.

### 2.9. Absenteeism

Data on absenteeism\* were collected for a period of 12 months, i.e., July 1961 to June 1962, in respect of production workers employed directly, excluding casual as well as contract labour. It may be mentioned that the Bureau very much desired to collect statistics of absenteeism by causes but as the managements generally did not maintain such information, it was not possible to do so. However, some general information on the subject was obtained from the managements. The following Statement 2.7 gives the rate of absenteeism in the different centres :

STATEMENT 2.7

*Estimated Rate of Absenteeism in Iron Ore Mines -July, 1961 to June, 1962*

Month	Bihar	Mysore	Orissa	Residual	All-India
(1)	(2)	(3)	(4)	(5)	(6)
<i>1961</i>					
July .. .. .	20.9	11.2	18.3	20.6	19.4
August .. .. .	15.2	9.8	16.7	21.8	16.7
September .. .. .	15.9	9.4	12.2	21.3	14.8
October .. .. .	15.7	12.0	16.0	23.2	16.9
November .. .. .	16.4	10.5	12.6	15.0	14.3
December .. .. .	14.8	11.7	17.7	16.9	16.4
<i>1962</i>					
January .. .. .	16.4	15.0	18.8	12.7	16.8
February .. .. .	16.5	13.5	15.4	10.6	15.0
March .. .. .	20.4	13.8	18.4	12.2	18.0
April .. .. .	18.1	15.8	14.1	17.6	16.0
May .. .. .	18.7	12.8	20.3	19.6	19.6
June .. .. .	21.9	14.5	19.5	18.4	20.1
Average (July 61 to June 62)	17.6	12.5	16.7	17.1	17.0

It is estimated that in the industry in the country, as a whole, the rate of absenteeism was 17 per cent. Among the individual centres of concentration, the absenteeism rate was the highest (17.6%) in Bihar followed by Orissa (16.7%). It was the lowest in Mysore. The rate of absenteeism in the mines comprising the Residual Group was considerable (17.1%). The variations in the rate of absenteeism as between the different months are discussed below for each centre.

(a) *Bihar* --In this centre the period of high absenteeism was March to July. The high rate of absenteeism during these months was generally attributed

\*Absenteeism is the failure of the workers to report on the job when he was scheduled to work, but does not include absences on account of strikes or lockouts or lay off. The rate of absenteeism is the percentage of man-days lost due to absences to the total man-days scheduled to work during the month.

by managements to various festivals during this period and to social functions, especially marriages. Since the work is generally done in open and since the temperature is fairly high during these months many absences may be due to this factor also. During heavy rains in July many workers do not turn up for work resulting in high rate of absenteeism during the month.

(b) *Mysore* --The absenteeism rate in Mysore was comparatively low. As regards the variations between the different months, the rate of absenteeism was the highest (15·8%) in April, followed by January (15·0%), June (14·5%), March (13·8%), February (13·5%) and May (12·8%). The general reasons for higher absenteeism during January to June seem to be agricultural operations and social/religious festivals.

(c) *Orissa* --The rate of absenteeism was the highest in the month of May (20·3%) followed by June (19·5%), January (18·8%), March (18·4%), July (18·3%) and December (17·7%). In Orissa, sowing season for winter rice starts in May and goes on up to July. Similarly, sowing of all other crops, viz., *jowar*, *bajra*, *urize* and *ragi*, is in progress during June and July. Thus, the various agricultural operations during these months are stated to be mainly responsible for high incidence of absences. Heavy rains during July and heat during May and June also contribute towards high rate of absenteeism, particularly because the work is done in open air. Harvesting of winter crops is done during December-January and many workers do not turn up for work during these months. The high rate of absenteeism during the month of March was due to religious festivals such as *Holi*, etc.

(d) *Residual Group* --The rate of absenteeism was the highest in October (23·2%), followed by August (21·8%), September (21·3%), July (20·6%), May (19·6%), June (18·4%) and April (17·6%).

Due to social and religious festivals as well as heat during May, June and July, heavy rains during August in Rajasthan and Maharashtra, where most of the mines in the Residual Group are located, absenteeism rate was quite high during these months. Religious festivals, such as *Dussehra*, were mainly responsible for the high rate of absenteeism during October. Similarly, agricultural operations accounted for the high absenteeism during the month of September.

## 2·10. Labour Turnover

The statistics of labour turnover were collected for a period of 12 months, i.e., July 1961 to June 1962, in respect of production workers directly employed excluding casual as well as contract labour. The main problem of collecting any statistics pertaining to contract labour was non-availability or non-maintenance of proper records by the contractors. In some of the establishments there were several petty contractors for various items of work with the result that it was usually difficult to locate and contact all of them for collecting any information. Moreover, there were frequent changes of these contractors and no records could be obtained from contractors who had left the mine. The records also, wherever maintained by the contractors, were either incomplete or did not have the required information for collecting statistics on absenteeism, labour turnover, etc. In certain cases all that they were able to show was the number of workers employed and their output for the week as a whole

as most of them were piece-rated. In view of these practical difficulties, the scope of statistics pertaining to absenteeism, and labour turnover was confined to only production workers employed directly by the managements for whom proper records were available. Statements 2-8 and 2-9 show the rates of accession and separation in the different centres of the industry.

## STATEMENT 2-8

*Accession Rate in Iron Ore Mines—July, 1961 to June, 1962*

Month	Estimated rate of accession in				
	Bihar	Mysore	Orissa	Residual	All-India
(1)	(2)	(3)	(4)	(5)	(6)
<i>1961</i>					
July .. .. .	3.8	..	18.0	23.8	12.7
August .. .. .	2.1	..	14.9	36.8	12.7
September .. .. .	1.8	..	17.5	15.5	11.2
October .. .. .	2.8	5.0	19.0	25.4	13.6
November .. .. .	1.4	..	19.1	57.5	18.4
December .. .. .	6.4	2.5	18.0	42.3	17.7
<i>1962</i>					
January .. .. .	10.2	..	41.3	24.0	27.6
February .. .. .	8.0	1.5	29.7	12.0	14.9
March .. .. .	4.3	..	18.7	13.3	13.0
April .. .. .	2.9	..	19.1	17.8	13.4
May .. .. .	4.5	5.5	9.9	17.1	9.2
June .. .. .	1.5	5.3	11.3	14.2	8.4
Average (1961-62) .. .. .	4.2	1.6	20.1	24.5	15.0

## STATEMENT 2-9

*Separation Rate in Iron Ore Mines—July 1961 to June 1962*

Month	Estimated rate of separation in				
	Bihar	Mysore	Orissa	Residual	All-India
(1)	(2)	(3)	(4)	(5)	(6)
<i>1961</i>					
July .. .. .	2.9	2.6	12.1	8.5	8.2
August .. .. .	5.5	..	16.2	22.3	12.7
September .. .. .	3.5	..	17.4	23.8	12.9
October .. .. .	3.6	..	20.2	25.0	14.4
November .. .. .	3.0	..	18.1	37.5	15.4
December .. .. .	1.6	2.5	9.2	59.2	9.1
<i>1962</i>					
January .. .. .	7.0	3.4	21.7	18.3	16.0
February .. .. .	7.7	4.0	21.8	14.1	15.9
March .. .. .	1.2	6.7	28.1	22.4	18.2
April .. .. .	9.4	..	20.3	20.7	16.6
May .. .. .	2.7	2.8	26.8	29.8	17.8
June .. .. .	0.8	..	13.0	27.7	10.9
Average (1961-62) .. .. .	4.2	1.8	19.2	23.1	14.2

In the industry as a whole, the rates of accessions and separations were fairly high being 15.0 and 14.2 respectively. The major contributory factor for such a high rate of labour turnover has been reported to be trade conditions. It was found that managements adjusted their working force according to the orders booked for the supply of iron ore. Whenever there were heavy orders or if the supplies were to be made within a stipulated period, managements engaged a large number of workers and dispensed with their services after the work was over. Besides association of workers with agricultural operations, which impelled their movement to villages during agricultural seasons, it was reported weather conditions also influenced their continuance on the job. Since iron ore mines are all open cast, workers have to work without any protection from sun or rain. Therefore during the height of the summer or rainy season quite a few workers prefer not to work.

As between the different centres, the rates of accession and separation were the highest in the Residual Group (24.5 and 23.1 per cent. respectively) followed by Orissa (20.1 and 19.2 per cent. respectively). The rates of accessions and separations were the lowest in Mysore. This may be due to the fact that nearly 84 per cent. of the production workers in this centre were casual workers who were out of the scope of labour turnover statistics.

During the course of the Survey it was noticed that most of the managements did not maintain records indicating separations by causes and hence no accurate statistics could be collected. However, on the basis of the version of the managements some data pertaining to separations by causes were collected and the results are presented in Statement 2.10.

#### STATEMENT 2.10

##### *Separation by Causes in Iron Ore Mines -1961-62*

Causes	Estimated percentage of separations in				
	Bihar	Mysore	Orissa	Residual	All-India
(1)	(2)	(3)	(4)	(5)	(6)
1. Discharge or Dismissals	1.7	26.3	1.6	3.7	2.1
2. Quits	94.7	73.7	98.4	96.3	97.5
3. Retirement, Death, etc.	3.6	..	..	..	0.4

NOTE—Figures in columns (2) to (6) are percentages of separations by causes to total separations in the respective centres.

Such information as was furnished by managements, shows that in the industry as a whole, 97.5 per cent. of the separations were due to quitting\* of the job by workers and 'discharge or dismissals' and 'retirement or death' together accounted for the rest. As regards the individual centres of concentration, "quits" were the main reasons in all the centres except Mysore. In Mysore, the proportion of separations due to "quits" accounted for nearly 74 per cent. and about 26 per cent. were due to discharge or dismissals.

\*Quits are termination of employments initiated by employees because of acceptance of jobs elsewhere, dissatisfaction, marriage, maternity, ill-health, unauthorised absence, etc.



### 2.11. *Recruitment*

At the time of the Labour Investigation Committee's enquiry, workers were recruited directly by the companies as well as through contractors. At the time of the present Survey the system of direct recruitment predominated in most of the centres but other systems also existed in a varying form. For instance, whereas in Bihar, Mysore and the Residual Group, the predominant system was recruitment at the mines gate by the management, in Orissa, nearly 52 per cent. of the workers were recruited through intermediaries like recruiters or labour contractors. Recruitment through Employment Exchange was reported only in Mysore and accounted for nearly 38 per cent. of the workers employed in that centre. The system of recruiting clerical and other supervisory staff through advertisement or through Head Office was also in vogue in a few units in all the centres.

### 2.12. *Regulation of Employment of Casual Labour*

There was no *badli* labour employed in any of the mines surveyed. The system of engaging casual labour was noticed only in Mysore. In this centre also, there was no systematisation or regulation of employment of casual labour. Managements recruited casual workers as and when the exigency of work demanded and absorption of casual workers into permanent cadre was entirely at the discretion of the managements and, in fact, it was very rarely done.

### 2.13. *Training and Apprenticeship*

None of the sampled units reported any system of training and apprenticeship.

## CHAPTER III

### WAGES AND EARNINGS

#### 3.1. *Wage Revision*

When the Labour Investigation Committee conducted their enquiry, the wage structure in the Iron Ore Mining Industry was apparently based on individual negotiations between workers and employers. This may be the reason for the prevalence of different wage rates for the different occupations in the various centres at that time. The Committee reported that the earnings of cutters varied between Re. 0-13-6 (Re.0.84) and Re. 1 per day, while daily earnings of loaders ranged from As. 5 (Re. 0.31) to As. 8 (Re. 0.50) in the centres surveyed by them. Even at the time of the present Survey there was no standardisation of wages on an industry-wise basis nor the industry was subject to statutory wage regulation under the Minimum Wages Act. However, information collected shows that since 1956 wages have been revised in nearly one-third of the mines. Of these, in nearly 72 per cent. wage revisions took place once, in 18 per cent. twice and in the rest three or more times. The details are given in the following Statement 3.1.

STATEMENT 3.1

*Estimated Percentage of Iron Ore Mines According to Number of Wage Revisions since 1956*

Centre	Number of mines	Estimated percentage of mines where there were wage revisions	Percentage of mines in which wage revision took place since 1956		
			Once	Twice	Thrice or more
(1)	(2)	(3)	(4)	(5)	(6)
1. Bihar .. .. .	13	36.5	100.0	..	..
2. Mysore .. .. .	26	11.5	..	..	100.0
3. Orissa .. .. .	23	38.4	39.6	60.4	..
4. Residual .. .. .	24	54.2	100.0	..	..
5. All India .. .. .	86	34.4	71.8	18.1	10.1

Information was also collected during the Survey on methods used for effecting wage revisions and the details are given in the following Statement 3.2.

STATEMENT 3.2

*Estimated Percentage of Wage Revisions According to Methods used for Effecting them*

Centre	Discretion of management	Conciliation	Voluntary agreements between employers and workers	Executive orders of Government
(1)	(2)	(3)	(4)	(5)
1. Bihar .. .. .	100.0	..	..	..
2. Mysore .. .. .	..	..	33.3	66.7
3. Orissa .. .. .	75.3	24.7	..	..
4. Residual .. .. .	100.0	..	..	..
5. All-India .. .. .	63.4	8.6	7.3	14.7

The figures show that a good majority of the wage revisions were due to voluntary decisions of the managements. The proportion of those effected as a result of conciliation or agreement between employers and workers was not very significant. The wage revision as a result of Executive Order was noticed in Mysore and it affected only State-owned mines.

### 3.2. Pay Periods

When the Labour Investigation Committee conducted an enquiry, the Payment of Wages Act was not applicable to this industry. The Committee reported that companies paid their staff punctually but contractors held up payments for weeks at a time with the result that the workers were put to a lot of trouble. With the application of the Payment of Wages Act to the industry, the wage period of the workers is now regulated. Data pertaining to the pay period of the workers collected during the Survey show that out of the estimated total number of 31.9 thousand workers employed in the Iron Ore Mining Industry, about 70 per cent. were paid wages once in a week and the remaining (*i.e.*, 30%) once in a month. The following Statement 3.3 gives details of pay period in the different centres.

STATEMENT 3.3

*Distribution of Workers According to Their Pay Period - June 1952*

Centre	Estimated total number of workers in the industry	Percentage of workers whose pay period was	
		Week	Month
(1)	(2)	(3)	(4)
1. Bihar .. .. .	8,637	61.5	38.5
2. Mysore .. .. .	1,076	29.8	70.2
3. Orissa .. .. .	14,109	81.9	18.1
4. Residual .. .. .	5,018	80.9	19.1
5. All-India .. .. .	31,870	69.5	30.5

The predominant system of settling wages was once a week in all the centres except Mysore. In Mysore the pay period of month accounted for about 70 per cent. of the total workers. It was noticed that one of the large mines under the control of the State Government had a uniform pay period of month for all workers, whether employed directly or through contractors. Since the mine engaged a large number of workers, it has influenced the over-all results for the centre. Barring this unit in all other units in Mysore a good majority of workers were being paid wages once in a week.

### 3.3. Average Daily Earnings

#### 3.3.1. All Workers

In view of the fact that the Bureau had conducted a detailed Occupational Wage Survey in 1958-59 in the different industries including the Iron Ore Mining Industry, no attempt was made during the present Survey to collect data pertaining to earnings of workers by occupations. However, some statistics were collected of earnings of broad groups of workers *e.g.*, all workers (*i.e.*, all those covered under the Mines Act), all production workers (separately for men and women), the lowest paid workers employed directly as well as.

those engaged through contractors, clerical employees and watch and ward and other related workers. The information so collected is presented in the following Statement 3-4. For maintaining comparability of the data information relating to earnings were collected for one wage period immediately preceding the specified date, i.e., 30th June, 1962.

## STATEMENT 3-4

*Estimated Average Daily Earnings of Workers in Iron Ore Mines - June, 1962*

(In Rupees)

Centre	All workers*	Production workers (employed direct)		
		Men	Women	All production workers
(1)	(2)	(3)	(4)	(5)
1. Bihar .. ..	3.32	3.50	2.99	3.47
2. Mysore .. ..	2.60	2.24	1.02	1.84
3. Orissa .. ..	2.61	3.50	1.63	2.85
4. Residual .. ..	2.26	2.28	1.42	2.12
5. All-India .. ..	2.75	3.16	1.61	2.81

\*All workers deemed to be covered under the Mines Act, whether employed directly by the managements or through contractors.

†Relate to workers employed directly by the managements and do not include production workers engaged through contractors.

The average daily earnings of 'all workers' in the industry in the country as a whole were Rs. 2.75 per day while 'production workers' earned on an average, Rs. 2.81 per day.

3.3.2. *Production Workers*

It is significant to note that the average daily earnings of 'production workers' were slightly higher than those of all workers in the industry as a whole. The All-India figure is influenced by the figures relating to Bihar and Orissa where the earnings of production workers were higher than those of 'all workers'. The main reason for higher earnings of 'production workers' as compared to 'all workers' in Orissa as well as Bihar seems to be the disparity in earnings of production workers employed direct and those engaged through contractors. Earnings data pertaining to 'all workers' include earnings of contract labour as well, whereas those of 'production workers' relate only to persons employed direct. In Orissa, production workers directly employed were usually engaged on mechanised jobs such as drilling, scrapping, bull dozing, etc., involving a higher degree of skill and consequently were better paid, whereas workers employed through contractors were mainly engaged for manual mining operations. In Bihar also it was found that earnings of contract labour were lower than those of production workers employed direct. Since in both the centres contract labour constituted a very significant proportion to the total production workers their earnings had influenced the over-all average daily earnings of 'all workers'.

Men production workers invariably earned more than women workers, the reason being that women were attending to light jobs and hence paid less as compared to men who were engaged on heavy jobs. Moreover, it was also noticed that in some of the mines in Bihar, Orissa and Mysore women were paid lower wages as compared to men even though the jobs on which men and women were engaged were the same.

### 3.3.3. *Lowest Paid Workers*

The following Statement 3.5 shows the earnings of workers employed in the lowest-paid occupations among production workers employed direct as well as those engaged through contractors.

#### STATEMENT 3.5

*Estimated Average Daily Earnings of Lowest Paid Workers in Iron Ore Mines - June, 1962*

Centre	(In Rupees)								
	Employed direct			Employed through contractors			All lowest paid workers		
	Men	Women	All	Men	Women	All	Men	Women	All
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Bihar ..	1.26	..	1.26	1.20	..	1.20	1.22	..	1.22
2. Mysore	1.41	0.97	1.25	2.22	1.29	2.03	1.89	1.09	1.66
3. Orissa ..	1.41	1.34	1.39	1.67	1.63	1.66	1.57	1.51	1.56
4. Residual	1.74	1.42	1.49	1.60	1.09	1.54	1.61	1.31	1.53
5. All-India	1.43	1.19	1.33	1.85	1.32	1.76	1.72	1.24	1.59

The lowest paid workers earned on an average Rs. 1.59 a day in the industry as a whole. Lowest paid workers engaged through contractors invariably earned more than their counterparts among the direct labour in all centres except Bihar. In Bihar, the proportion of contract labour to total production workers was not so high as compared to other centres. Contract labour was engaged only for unskilled jobs often at low rates and hence the difference. The main reason for somewhat higher earnings of the lowest paid contract labour than those of the lowest paid direct workers in other centres was that jobs on which contract labour was engaged were different from those of the direct workers. Moreover, contract workers were usually paid wages on the basis of their output whereas directly employed lowest paid workers were generally time-rated.

The occupations in which lowest paid workers employed directly were generally engaged were sorters, trollymen, face cleaners, blacksmith helpers, carpenter helpers, earth moving and levelling *mazdoors*, while the lowest paid contract labour were engaged as blacksmith helpers, earth levelling *mazdoors* and general *mazdoors*.

### 3.3.4. Earnings of Clerical and Watch and Ward and Other Related Employees

The following Statement 3.6 shows the average daily earnings of clerical staff and watch and ward and other employees.

#### STATEMENT 3.6

*Estimated Average Daily Earnings of Clerical Staff and Watch and Ward and Other Related Workers in Iron Ore Mines—June 1932*

(In Rupees)

Centre	Clerical and related workers (including supervisory)						Watch and ward and other services
(1)	(2)						(3)
1. Bihar .. .. .	..	..	..	..	..	7.71	2.47
2. Mysore .. .. .	..	..	..	..	..	4.84	1.77
3. Orissa .. .. .	..	..	..	..	..	5.20	1.77
4. Residual .. .. .	..	..	..	..	..	4.70	2.31
5. All-India .. .. .	..	..	..	..	..	6.19	2.25

In the industry in the country as a whole, the average daily earnings worked out to Rs. 6.19 in the case of clerical staff and Rs. 2.25 in the case of watch and ward and other related employees.

### 3.4. Components of Earnings

#### 3.4.1. Basic Wages and Dearness Allowance

Basic earnings, i.e., basic wage and dearness allowance (wherever such an allowance was paid as a separate component), accounted for nearly 89 per cent. of the total average daily earnings of 'all workers' in the industry in the country as a whole. This item constituted nearly 93.5 per cent. of the total earnings in Mysore, 90 per cent. in Orissa and 82 per cent. in Bihar. In the 'Residual Group' this item accounted for almost cent. per cent. of the total earnings. The following Statement 3.7 gives the average earnings by components of 'all workers' in the industry.

#### STATEMENT 3.7

*Estimated Average Daily Earnings by Components of All Workers in Iron Ore Mines—June 1962*

(In Rupees)

Centre	Basic earnings (Basic+ D.A.)	Pro-duction or incentive bonus	Night shift allowance	House rent allowance	Trans- port allowance	Over- time pay	Food grain concessions	Other cash allow- ances	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Bihar ..	2.72 (81.93)	*	..	..	..	0.39 (11.75)	0.20 (6.02)	0.01 (0.30)	3.32 (100.00)
2. Mysore	2.43 (93.46)	0.05 (1.92)	*	*	..	..	..	0.12 (4.62)	2.60 (100.00)
3. Orissa ..	2.35 (90.04)	0.03 (1.15)	..	*	*	0.02 (0.77)	0.17 (6.51)	0.04 (1.53)	2.61 (100.00)
4. Residual	2.26 (100.00)	..	..	..	..	..	..	*	2.26 (100.00)
5. All-India	2.45 (89.09)	0.02 (0.73)	*	*	*	0.11 (4.00)	0.13 (4.73)	0.04 (1.45)	2.75 (100.00)

\*Indicates that the amount was less than Rs. 0.005.

NOTE—Figures in brackets are percentages to the total in column (10).

### 3.4.2. Dearness Allowance

The system of paying dearness allowance as a separate component was not very much in vogue in the industry. Such an allowance was being paid only in one sampled unit each in Bihar, Mysore and Orissa. In all these cases, it was paid on the basis of income slabs and nowhere it was linked to the Consumer Price Index. The categories of workers covered differed as between the three centres. Details are given below for each centre.

(a) *Bihar* - In the sampled unit where the system of dearness allowance existed, it was paid to all workers (i.e., contract as well as departmental workers) except a few senior technicians and administrative personnel. Daily rated employees received dearness allowance according to their basic wage. The rate of dearness allowance varied from Re. 0.65 per day for those whose basic wages were below Rs. 2.38 per day and Re. 0.85 per day to Re. 0.92 per day for those getting a basic wage of Rs. 2.38 or more per day. Similarly, monthly rated employees received dearness allowance ranging from Rs. 17.00 to Rs. 25.00 per month according to their basic pay.

(b) *Mysore* - The practice of paying a separate dearness allowance was in vogue only in one sampled unit. In this unit it was paid at a rate which varied according to income slabs. The minimum amount paid as dearness allowance was Rs. 35 per month in the case of persons drawing a basic pay upto Rs. 80 per month and the maximum was Rs. 65 per month in the case of persons getting between Rs. 501 and Rs. 800 per month.

(c) *Orissa* - As already stated the system of payment of dearness allowance was in vogue only in one sampled unit. It was paid to all time-rated workers, whether employed directly or engaged through contractors, and also to such of the monthly-rated employees whose basic pay was below Rs. 200 per month. The rate for daily-rated worker was 60 per cent. of the basic wage in the case of those getting below Re. 1 per day. For those whose basic wage was Re. 1 or above, the rate was 50 per cent. of the basic wage. Monthly-rated employees getting a basic pay of up to Rs. 60 per month were being paid dearness allowance at the rate of Rs. 52.50 per cent. of their basic pay, those drawing basic pay from Rs. 61 to Rs. 100 received 47.50 per cent. of their basic pay as dearness allowance, while those whose basic pay was above Rs. 100 but below Rs. 200 received dearness allowance at the rate of 42.50 per cent. of their basic pay. No dearness allowance was being paid to piece-rated workers (whether employed direct or through contractors) or to monthly-paid employees engaged through contractors.

### 3.4.3 Production/Incentive Bonus

As would be seen from Statement 3.6, income from this item accounted for an insignificant proportion of the total daily earnings of workers. The system of paying production bonus was in vogue only in a few large mines in Bihar, Mysore and Orissa. In the units paying such a bonus in Orissa and Bihar\* only certain categories of workers such as miners and loaders were eligible for it.

---

\*In Bihar the system of paying production bonus was reported only in one sampled unit. Only a few categories of workers got the benefit and the amount earned was negligible and hence it does not feature in Statement 3.6.

Usually certain norms were fixed by the managements and bonus was paid to those exceeding the norm. In Mysore, the sampled unit was a part of a Government owned iron and steel works. In the latter, production bonus was paid to workers according to the rates fixed for (a) productive departments, and (b) non-productive departments. The sampled mine was treated as a non-productive department as far as the production bonus payable by the main unit was concerned. Workers employed in the mine thus received production bonus at the rate fixed for the non-productive departments of the iron and steel works.

In Orissa, apart from the production bonus for miners and loaders, discussed above, the following incentive bonuses were in vogue in one of the sampled units:—

1. Ordinary Tub Bonus.
2. Extra Tub Bonus.
3. Absconding or Efficiency Bonus, and
4. Repatriation Bonus.

As in the case of production bonus, certain norms of production were fixed for the ordinary and extra tub bonuses and workers, who exceeded the norms, were given these bonuses. As regards 'absconding or efficiency bonus', only supervisory staff who could ensure the normal efficiency of working strength without allowing workers to leave the units were eligible. The payment was made if the percentage of outgoing or absconding workers during a quarter did not go up by more than 3·5 per cent. of the peak strength in the quarter. The rate of bonus, which varied according to the percentage of absconding workers, ranged from Rs. 25 per quarter to Rs. 150 per quarter.

Repatriation bonus was payable to workers at the end of their term only for the attendance put in by them. The qualifying condition was an attendance of at least 240 days in a year, including authorised leave. The rate varied from Re. 0·19 to Re. 0·35 per day of attendance.

#### 3·4·4. *Overtime Pay*

This item constituted Re. 0·11 or 4 per cent. of the average daily earnings in the industry, as a whole. The system of overtime work was mostly in vogue only in Bihar and to a small extent in Orissa.

#### 3·4·5. *Food Grain Concession*

The practice of supplying workers food grains at concessional rates was found to be in vogue only in Bihar and Orissa, the percentage of units having the practice being 44 and 100 respectively. In the country as a whole, the money value of the concession accruing to workers accounted for 4·7 per cent. of the average daily earnings.

#### 3·4·6. *Attendance Bonus*

The practice of paying attendance bonus as a measure for reducing absenteeism existed only in about 8 per cent. of the units in the industry. The system was found to exist only in one unit each in Orissa and Mysore. In the Orissa unit, all the categories of workers who put in an attendance of 240 days in a year were eligible for the payment. The rate of payment was 15 days' basic wages for weekly-paid workers, and 1½ months' wages in the case of monthly-paid workers.



In the Mysore unit, attendance bonus was payable at the rate of 5 per cent. of their basic wages to all workers up to the rank of foreman who did not absent themselves for more than 2 days in a month.

### 3.4.7. *Other Cash Allowances*

Income from this group constituted only 1.5 per cent. of the average daily earnings of a worker in the industry, in the country, as a whole. Allowances such as servant allowance, camp allowance, rice allowance, locality allowance, heat allowance, lighting subsidy, heavy duty allowance, field allowance, security deposit allowance, etc., were included under this group. Only a few categories of employees e.g., supervisory staff and officers, were in receipt of such allowances.

### 3.5. *Bonus*

The labour Investigation Committee in their report mentioned the existence of system of profit sharing bonus in only the Tata Iron and Steel Co., mines. They mentioned that in these mines bonus was being paid at the rate of two months' wages to direct labour only. Information collected during the course of the present Survey shows that the practice of paying annual bonus was prevalent in almost all the centres. In the industry in the country as a whole, the practice of paying annual bonus was in vogue in nearly 60 per cent. of the mines; another 7 per cent. paid festival bonus and profit sharing bonus was paid in 3 per cent. of the mines. Details are discussed below for each centre: --

(a) *Bihar*—The system of paying annual bonus was noticed only in one sampled unit. Another sampled unit in this centre was paying festival bonus (pooja bonus). In the former case, bonus was being paid to production workers, watch and ward employees and junior technical and clerical employees. The rate of bonus differed for the different years. The bonus for the year 1962-63 was paid to staff and labourers who completed a year's service at the rate of 78.31 days' wages or salary as per agreement between the Union and the Management.

In the unit where festival bonus was given, bonus at the rate of one month's pay was allowed to all monthly-rated production workers as also managerial, clerical and watch and ward personnel.

The only condition in both the cases was continuous service of one year during the bonus period.

(b) *Mysore*—In this centre, profit sharing bonus was noticed only in one sampled unit. It was paid to all categories of workers according to the terms and conditions set out in the Industrial Truce Agreement arrived at between the parties. The amount paid depended upon the percentage of profit and ranged from 8 per cent. of total earnings of workers subject to a maximum limit of 25 per cent. in all cases.

Annual bonus (year-end bonus) was being paid in nearly 66 per cent. of the mines in this centre. It was generally paid at the rate of one month's wages to all monthly rated staff, manager and supervisory production workers.

(c) *Orissa* -All the mines in this centre paid either annual bonus or festival bonus. In nearly 85 per cent. of the mines in this centre, year-end bonus was allowed to weekly paid workers as well as monthly rated supervisory staff. The bonus was usually given at the rate of 3 weeks' to 40 days' wages to the weekly-paid workers and 2 months' to 3 months' pay to other monthly-rated personnel. In one of the sampled units, bonus was allowed to contract labour also at the rate applicable to daily rated workers employed directly by the managements. Festival bonus was allowed in only one sampled unit. The payment, however, was restricted to monthly-paid workers and the weekly-paid workers, who constituted the bulk of the working force of the unit, were not entitled to it. The bonus was usually paid at the rate of 2 months' consolidated wages.

(d) *Residual Group* -The system of paying year-end bonus was in vogue only in 2 sampled units. In one unit, it was being paid at the rate of one month's pay to only monthly-rated staff and weekly-paid workers who were in majority in the unit did not get any bonus at all. In the other unit bonus was being paid at the rate of one month's pay to directly employed workers. In this unit contract labour constituted almost the entire strength and direct workers were very few.

### 3.6 *Fines and Deductions*

No fines were found to be imposed in any of the units and deductions, wherever made, were in conformity with the Payment of Wages Act.

## CHAPTER IV WORKING CONDITIONS

### 4.1. Shifts

The information collected during the Survey shows that almost 98 per cent. of the mines in the country worked only one shift. The following Statement 4.1 gives details for the different centres:

STATEMENT 4.1  
*Estimated Percentage of Iron Ore Mines According to Number of Shifts Worked—1962-63*

Centre			Number of mines	Percentage of mines having			Percentage of mines having night shifts*
				One shift	Two shifts	Three shifts	
(1)			(2)	(3)	(4)	(5)	(6)
1. Bihar	..	..	13	84.6	..	15.4	15.4
2. Mysore	..	..	26	100.0	..	..	..
3. Orissa	..	..	23	100.0	..	..	..
4. Residual	..	..	24	100.0	..	..	..
5. All-India	..	..	86	97.7	..	2.3	2.3

All the units in Mysore, Orissa as also in the Residual Group had only one shift. In Bihar also, the percentage of units having only one shift was 85 and in the rest (15%) there were three shifts. The practice of having night shift was also in vogue only in this centre in a few large mines.

### 4.2. Hours of Work

The Labour Investigation Committee reported that the normal hours of work were 8 for company labour but the working hours for contract labour were as high as 12 a day. The results of the present Survey show that daily hours of work were uniformly 8 for direct as well as contract labour in all the mines in the different centres. The following Statements 4.2 and 4.3 give details of hours of work, duration of spreadover, rest interval, etc., for direct labour as well as contract labour:—

STATEMENT 4.2  
*Hours of Work, Duration of Spreadover and Rest Interval for Direct Labour in Iron Ore Mines, 1962-63*

Centre	Number of mines	Percentage of mines where daily hours of work were			Percentage of mines where the duration of spread over was	
		Less than 8 hours	Equal to 8 hours	More than 8 hours	Less than 8 hours	8 to 9 hours
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar	13	..	100.0	..	..	15.4
2. Mysore	26	..	100.0	..	..	100.0
3. Orissa	23	..	100.0	..	..	38.4
4. Residual	24	..	100.0	..	..	54.2
5. All-India	86	..	100.0	..	..	57.9

\*For the purposes of the Survey, a night shift was treated as one whose majority of working hours fell between 10 P.M. and 6 A.M.

STATEMENT 4·2—*contd.*

Centre	Percentage of mines where the duration of spreadover was		Percentage of mines where the duration of rest interval was			Percentage of mines where timings were being observed
	More than 9 hours		No rest interval at all	$\frac{1}{2}$ to 1 hour	More than 1 hour	
	(8)		(9)	(10)	(11)	(12)
1. Bihar ..	84·6		15·4	..	84·6	100·0
2. Mysore ..	..		..	100·0	..	100·0
3. Orissa ..	61·6		..	38·4	61·6	53·6
4. Residual ..	45·8		..	54·2	45·8	100·0
5. All-India ..	42·1		2·3	55·6	42·1	87·6

## STATEMENT 4·3

*Hours of Work, Duration of Spreadover and Rest Interval for Contract Labour in Iron Ore Mines, 1962-63*

Centre		Number of mines	Estimated percentage of mines employing contract labour	Percentage of mines where daily hours of work were			Percentage of mines where the duration of spreadover was Less than 8 hours
				Less than 8	Equal to 8	More than 8	
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar ..	..	13	36·5	..	100·0	..	..
2. Mysore ..	..	26	33·6	..	100·0	..	..
3. Orissa ..	..	23	84·8	..	100·0	..	..
4. Residual ..	..	24	62·5	..	100·0	..	..
5. All-India ..	..	86	55·8	..	100·0	..	..

Centre		Percentage of mines where the duration of spreadover was		Percentage of mines where the rest interval was			Percentage of mines where timings were being observed
		8 to 9 hours	More than 9 hours	No rest interval at all	$\frac{1}{2}$ to 1 hour	More than one hour	
		(8)	(9)	(10)	(11)	(12)	(13)
1. Bihar ..	..	42·1	57·9	42·1	..	57·9	42·1
2. Mysore ..	..	100·0	..	..	100·0	..	100·0
3. Orissa ..	..	45·3	54·7	..	45·3	54·7	45·3
4. Residual ..	..	26·7	73·3	..	26·7	73·3	100·0
5. All-India ..	..	49·1	50·9	4·2	44·9	50·9	72·0

NOTE—Percentages in Cols. (4) to (13) relate to mines in Col. (3).

The Survey results show that not only hours of work but also duration of spreadover and rest interval were more or less the same for the direct as well as contract labour. As already stated earlier, night shifts were worked only in 15 per cent. of the units in Bihar and in all of them night shift workers were also required to put in only 8 hours of work per day.

The duration of spreadover and rest interval were generally in conformity with the provisions of the Mines Act and Rules in all the centres. However, in Bihar it was noticed that no rest interval was allowed by 15 per cent. of the mines to directly employed workers and by about 42 per cent. of mines employing contract labour. The concerned mines were having 3 shifts of 8 hours each with no rest interval for any of the shifts.

Information collected regarding observance of timings by the managements show that timings were strictly observed in all the mines covered in Mysore and the Residual Group. In Bihar, however, it was found that timings of work were not strictly observed so far as contract labour is concerned in nearly 58 per cent. of the mines employing such workers. No such violations were noticed in respect of direct labour in this centre. In Orissa, the extent of violation was greater. The default was noticed in 46 per cent. of the mines in the case of direct labour and 55 per cent. of the mines employing contract labour so far as such workers were concerned.

### 4.3. Conservancy

In spite of the fact that the Mines Act makes it obligatory for the managements to make suitable conservancy arrangements, in the industry as a whole only 81 per cent. of the mines had provided latrines. All the mines in Bihar and Orissa had provided latrines, but in Mysore and the Residual Group, the compliance was only partial. The percentage of mines providing latrines in Mysore and the Residual Group was 56 and 81 respectively. The mines which had not provided latrines were all small establishments located in the interior areas. The defaulting managements argued that there was no necessity for any latrines as workers used open fields.

The following Statement (4.4) gives details regarding the type of arrangements, etc., in the various centres.

STATEMENT 4.4

### *Conservancy Arrangements in Iron Ore Mines—1962-63*

Centre	Number of mines	Percentage of mines							
		Providing					Providing water taps near latrines	Where latrines were properly screened	Employing women and having separate arrangements for them
		Latrines	Urinals	Water borne sewers	Water borne septic tanks	Dry type pan			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Bihar ..	13	100.0	57.7	15.4	42.3*	42.3	..	100.0	100.0
2. Mysore ..	26	55.8	22.1	..	..	100.0	20.7	100.0	55.8
3. Orissa ..	23	100.0	84.8	..	..	100.0	..	100.0	100.0
4. Residual	24	81.2	27.1	..	..	100.0	..	100.0	72.9
5. All-India	86	81.4	45.6	2.9	7.8*	89.3	4.3	100.0	79.1

\*These units had water borne sewers also.

It would be seen from Statement 4.4 that 'dry type pan' latrines was the universal arrangement in Orissa, Mysore and the Residual Group. It was only in Bihar, that a better type of arrangement in the form of water borne sewer and/or water-borne septic tanks existed in most of the mines.

The Mines Act requires employers to provide separate conservancy arrangements for women workers employed in the mines. The Survey results show that such arrangements existed in all the mines employing women in Orissa and Bihar. As regards Mysore and the Residual Group, even though women were found to be employed in all the mines in these centres, separate arrangements had been made only in 56 per cent. of the mines in Mysore and 73 per cent. in the Residual Group. The defaulting managements generally argued that workers were not utilizing even the existing latrines and hence there was no point in providing separate latrines for women. Latrines, wherever provided, were properly screened.

The proportion of the mines providing urinals was, however, found to be lower in all the centres. The general explanation given for not providing urinals was that latrines were being used as urinals as well. It was also observed that even where there were urinals they were not being utilised by the workers.

Generally speaking, the number of seats of latrines and urinals were found to be inadequate and the nature of their construction in almost all the centres left much to be desired. In almost 76 per cent. of the mines, the floor of the latrines was impervious.

#### 4.4. *Leave and Holidays with Pay*

Though the law requires employers to grant only annual leave with pay to their employees, yet either by convention or as a result of agreement or adjudication awards the system of granting other types of leave and holidays has now come into vogue in the industry. The following Statement 4.5 shows the percentage of mines granting various types of leave and holidays with pay.

#### STATEMENT 4.5

*Estimated Percentage of Iron Ore Mines Granting Various Types of Leave with Pay, 1962-63*

Centre		Number of	Percentage of mines granting				
			Annual leave (earned leave)	Casual leave	Sick leave	National and festival holidays	Furlough leave
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar	..	13	100.0	..	100.0	100.0	..
2. Mysore	..	26	100.0	55.8	55.8	100.0	11.5
3. Orissa	..	23	100.0	38.4	100.0	100.0	..
4. Residual	..	24	100.0	62.5	..	100.0	..
5. All-India	..	86	100.0	44.6	58.7	100.0	3.5

##### 4.4.1. *Earned Leave*

Though till 1952 there was no statutory provision for the grant of paid leave to mine workers, the Labour Investigation Committee had found that

the practice of granting privilege leave ranging from 14 days to one month to monthly-rated staff and daily-rated workers existed in the mines visited by them. This was obviously a voluntary affair. Since then grant of earned leave with pay has become mandatory.

Under the Mines Act, it is obligatory on the part of employers to grant annual leave with wages to each worker at the rate of one day for every twenty days of work performed by him. In case of workers employed below ground, leave is to be allowed at the rate of one day for every 16 days worked. The statistics given in Statement 4.5 show that all the iron ore mines in the different centres were respecting the law in this regard. In regard to period of leave, qualifying conditions and rate of payment, etc., all the mines surveyed were found to be following the provisions of the Mines Act, 1952.

With a view to obtaining a picture of the extent to which workers were actually enjoying the benefits of annual leave, statistics were collected about the number of workers who availed earned leave during the calendar year (1961) preceding the date of starting the Survey. The information so collected is given in the following Statement 4.6.

#### STATEMENT 4.6

##### *Estimated Proportion of Workers Granted Earned Leave during 1961*

Centre			Estimated average daily number of workers employed in 1961	Estimated number of workers who enjoyed leave in 1961	Percentage of workers who enjoyed leave to the total employed	Percentage distribution of workers who enjoyed leave by period of leave enjoyed	
						Up to 5 days	6 to 10 days
(1)			(2)	(3)	(4)	(5)	(6)
1. Bihar	..	..	10,222	5,807	56.8	6.6	6.7
2. Mysore	..	..	4,586	537	11.7	10.2	23.9
3. Orissa	..	..	19,466	2,911	15.0	10.2	24.7
4. Residual	..	..	3,591	577	16.1	36.0	36.0
5. All-India	..	..	37,865	9,832	26.0	9.6	14.7

Centre			Percentage distribution of workers who enjoyed leave by period of leave enjoyed				
			11 to 15 days	16 to 20 days	21 to 25 days	26 to 30 days	Over 30 days
			(7)	(8)	(9)	(10)	(11)
1. Bihar	..	..	12.7	20.6	20.0	14.0	10.4
2. Mysore	..	..	41.5	14.3	6.0	4.1	..
3. Orissa	..	..	37.3	16.0	7.1	4.7	..
4. Residual	..	..	7.3	7.3	12.1	0.4	0.9
5. All-India	..	..	21.3	18.1	14.9	9.9	11.5

It is evident from the figures given in Statement 4.6 that in the industry as a whole only 26 per cent. of the workers were enjoying annual leave even

though the system of granting leave was in vogue in cent. per cent. of the units in the industry. The proportion of workers who enjoyed leave was nearly 57 per cent. of the total number of workers employed in Bihar. In other centres, the proportion was very low, i.e., 16 per cent. in the Residual Group, 15 per cent. in Orissa and only 12 per cent. in Mysore. The main reason for so low percentage in Mysore seems to be the predominance of casual workers, who constituted as much as about 85 per cent. of the working force. A very high rate of labour turnover\* seems to be largely responsible for low percentage of workers enjoying leave in Orissa and the Residual Group of Mines. On account of their short period of employment workers in these centres could not qualify for the benefit. It would be seen from Statement 2·6 on page 11 that nearly 50 per cent. of production workers in Orissa and 67 per cent. in the Residual Group had less than one year's service to their credit in June, 1962.

Of those who availed of earned leave, nearly 24 per cent. availed leave up to 10 days, 21 per cent. between 11 and 15 days and the rest (55%) availed 16 days or more. The position varied as between the different centres.

#### 4·4·2. *Sick Leave*

The practice of granting sick leave was in vogue in all the centres except the Residual Group. The facility was generally restricted to monthly-paid employees. In stray cases, it was allowed to all categories of workers. The qualifying condition was usually the production of a medical certificate from a doctor. The number of days granted varied from unit to unit and from centre to centre. It ranged from 7 to 15 days in Orissa, 7 to 30 days in Bihar and 10 to 20 days in Mysore. In a few mines in Orissa and Mysore the number of days were not fixed. The number of days allowed was at the discretion of managements. The rate of payment was usually full consolidated wages in the case of workers and the usual rate of basic pay and other regular allowances in the case of monthly-rated staff.

#### 4·4·3. *Casual Leave*

The practice of granting casual leave was in vogue in all the centres except Bihar. The privilege was invariably restricted to permanent workers and managerial, technical, clerical and supervisory production workers. Only in a few mines in Mysore and the Residual Group the benefit was extended to all categories of employees. There was practically no qualifying condition and the number of days of casual leave varied. In Orissa the limit was 10 days in some, while in others the matter was subject to the discretion of the management. In Mysore it ranged from 10 to 15 days. In the Residual Group the limit was 7 days. Workers were generally paid their consolidated wages and monthly-rated staff their full basic pay and other regular allowances for the leave period.

#### 4·4·4. *National and Festival Holidays*

All the mines surveyed were found to be granting national and/or festival holidays with pay. The qualifying condition generally fixed was that the worker must be present on the preceding and/or succeeding days of the holidays. For such holidays workers were paid their normal wages whereas

---

\*See Statements 2·8 and 2·9 page 14.



monthly-rated staff were given their full basic pay plus all other regular allowances. The number of days allowed ranged from 2 to 7 in Orissa, 2 to 3 in Bihar, 2 to 8 in Mysore and 2 to 4 in the Residual Group.

#### 4.4.5. *Furlough Leave*

This practice of granting furlough leave was found to exist only in one sampled unit in Mysore. This mine was under the control of the State Government and furlough leave was allowed as per the rules framed by the State Government. Briefly stated, monthly rated employees were allowed such leave at the rate of 3 months for every 7 years of service with full pay and dearness allowance or 6 months on half pay. If the leave was on medical grounds, payment was made at the rate of the average pay drawn during the preceding 12 months (including all allowances).

#### 4.4.6. *Weekly Off*

All the mines throughout the country were complying with the provisions of the law in regard to grant of weekly off to their employees. Since the law does not provide for payment for such off days, the ordinary workers, who were generally daily-rated, did not get any pay for such days. Monthly-rated employees automatically enjoyed such off days with pay.

## CHAPTER V

### WELFARE AND AMENITIES

Welfare activities undertaken by employers and various amenities provided to workers fall under two categories (a) obligatory, i.e., those prescribed under the Mines Act, and (b) voluntary, i.e., those which are not statutory but are being provided by employers as a moral obligation or in a spirit of benevolence. During the course of the present Survey an attempt was made to collect data in respect of both the types and the information so collected is given in the following paragraphs.

#### (a) OBLIGATORY

##### 5.1. *Drinking Water Facilities*

The Mines Act requires every mine to make effective arrangements to provide and maintain, at suitable points conveniently situated, a sufficient supply of cool and wholesome drinking water for all persons employed therein. The findings of the Survey reveal that all the mines surveyed had provided drinking water facilities for their employees. The following Statement 5.1 gives details of the type of arrangements of the drinking water facilities.

#### STATEMENT 5.1

##### *Drinking Water Facilities in Iron Ore Mines, 1962-63*

Centre	No. of mines	Estimated percentage of mines providing drinking water facilities	Estimated percentage of mines where water supply arrangement was						Estimated percentage of mines having made arrangements for cool water in summer
			Refrigerated water or water cooler	Earthen pitchers	Earthen pitchers and buckets or drums	Tube wells or wells	Only taps	Buckets or drums only	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Bihar ..	13	100.0	.	..	15.4	.	..	84.6	100.0
2. Mysore	26	100.0	.	22.1	..	.	11.5	66.4	22.1
3. Orissa ..	23	100.0	.	..	15.2	.	..	84.8	15.2
4. Residual	24	100.0	.	37.5	..	.	45.8	16.7	37.5
5. All-India	86	100.0	.	17.1	6.4	.	16.3	60.2	36.3

It will be noticed that the predominant arrangement for the supply of drinking water was buckets or drums only. Special arrangements for the supply of cool water in summer months were found to exist in all mines in Bihar and some in Mysore, Orissa and the Residual Group. The arrangement was in the shape of earthen pitchers only.

### 5.2. *Washing Facilities*

No mention has been made in the Mines Act regarding provision of washing facilities to workers employed in Iron Ore mines. Data collected during the Survey reveal that washing facilities existed only in a few units in Mysore.

### 5.3. *Bathing Facilities*

Employers of iron ore mines are not under a statutory obligation to provide bathing facilities to their workers and excepting a few mines in Mysore, nowhere such facilities were found to exist. The units where bathing facilities had been provided, separate arrangements existed for men and women.

### 5.4. *Canteens*

The rules framed under the Mines Act, 1952 require every mine employing 250 or more workers to provide, within the precincts of the mine, a canteen for the use of workers. Standards of canteens have also been prescribed in the rules. The Survey results show that in the industry as a whole only about 19 per cent. of the mines were under a statutory obligation to provide canteens and out of these, nearly 78 per cent. had provided canteens. In addition, nearly 26 per cent. of the mines which were under no obligation to provide canteens, had also done so. Thus, in the industry as a whole, the percentage of units which had provided canteens irrespective of whether they were under a legal obligation to provide or not, was about 40. Compliance with the law was cent. per cent. in all the centres except Orissa where only 50 per cent. of the mines under an obligation to provide canteens were providing them. In nearly 58 per cent. of the mines which had canteens, managements themselves ran the canteens and in the rest (42%) the canteens were run jointly by managements and workers.

A noteworthy feature of the canteens functioning in the industry was that nearly 76 per cent. served meals besides having arrangements for snacks, tea, coffee, etc. The rest sold only tea/coffee and snacks. Everywhere items were sold on a 'no-profit no-loss' basis. Prices were fixed by the canteen managing committees in nearly 61 per cent. of the units and in the rest, supervisory staff of the canteens fixed the prices. In only 61 per cent. of the mines having canteens price list of items sold were displayed as required by law. Regular subsidy was being given by the managements of nearly 11 per cent. of the mines having canteens for meeting losses.

General information collected on the location of the canteens indicates that the position was good in almost all the canteens, while hygienic conditions were generally satisfactory.

### 5.5. *Creches*

There was no statutory provision for the maintenance of creche at the time of the enquiry by the Labour Investigation Committee and no creche facility existed in the mines surveyed by the Committee. At the time of the present Survey, however, all mines which employed women were under a statutory obligation to provide creche facility for the use of children, under the age of six, of their women workers. The Mines Creche Rules prescribe the standard of construction of creche buildings and items to be supplied to children.

The Survey results show that nearly 94 per cent. of the mines in the industry were employing women workers and consequently were under a statutory obligation to provide creche for the use of children. Of these, only about 59 per cent. had provided such facilities. Defaulters were mostly small mines in Bihar (73%), Mysore (21%) and also in the Residual Group (92%). The reason given by managements for not providing a creche was that there were few women workers and that they were old and had no children needing creche facilities. As regards individual centres of concentration the position in regard to the standard of creche varied considerably. Whereas toys were supplied in all the units in Bihar and the Residual Group, the compliance was only partial in the case of Orissa (54%) and Mysore (15%). Similarly, clean clothes, soap, towels and milk and/or refreshments were found to be supplied in all the units in Bihar. In Orissa, clothes, soaps and refreshments/milk were supplied in all the units, while towels were supplied only in 77 per cent. of the units. In Mysore, clean clothes, soap and towels were supplied only in 15 per cent. of the units, but milk and/or refreshments were supplied in nearly 43 per cent. In the Residual Group, soap, towels and milk and/or refreshments were given in all the units but no clean clothes were supplied in any of the units surveyed.

In nearly 68 per cent. of the mines having creches, the facilities were also extended to children of women workers employed through contractors.

#### 5.6. *Lockers*

Iron ore mines in the country are not under any statutory obligation to provide lockers and none of the sampled units had provided them.

#### 5.7. *Rest Shelters*

The rules framed under the Mines Act require every mine employing 150 or more workers on any day during the previous calendar year, to provide rest shelters unless they run a canteen as required by law. They also prescribe the standards of rest shelters. In the industry in the country, as a whole, nearly 38 per cent. of the mines were under a legal obligation to provide rest shelters. The Survey results show that all the units had complied with the law. Of these mines, nearly 44 per cent. had provided separate rest shelters and the rest (56%) had canteens as well as rest shelters. However, only in about 32 per cent. of the mines the rest shelters were of the prescribed standard, in the rest there were deficiencies of a varying nature. Usually rest shelters were ill lighted or ventilated.

#### 5.8. *Medical Facilities*

The Labour Investigation Committee had covered only a few mines in the country and hence had given their views regarding the conditions in these mines. They had reported the existence of a well-equipped hospital at Noamundi mine, one hospital at Gua and 2 in Barbil. They had expressed the view that medical facilities in the mines visited by them were on the whole adequate. In view of the differences in the scope of the Committee's enquiry and the present Survey no comparative idea can be given of the conditions in regard to medical facilities then and at the time of the present Survey. However, the position existing at the time of this Survey is discussed below.

### 5·8·1. *First-Aid Boxes or Cup Boards*

Under the rules framed under the Mines Act it is obligatory for each mine to keep first-aid boxes or cupboards containing the prescribed contents. The Survey results show that all the mines in the different centres in the country kept first-aid boxes or had cupboards for the use of their workers. Under the law such boxes or cupboards must be kept under trained first-aiders. However, it was found that in the industry as a whole, such boxes were under the charge of trained first-aiders in only about 80 per cent. of the mines. In about 7 per cent. of the mines, only a few first-aid boxes were kept under the charge of trained first-aiders, and in the rest (13%) there were no trained first-aiders at all. The defaulting mines were only in Mysore. In this centre, only in about 34 per cent. of the mines all the first-aid boxes were under the charge of trained first aiders, in another 22 per cent. only a few boxes were under the charge of trained first-aiders and in the rest (44%) none of the boxes was under the charge of trained first aiders. Everywhere first-aiders were trained under the St. John's Ambulance Scheme.

As regards the standard of first-aid boxes, it was found that in only about 58 per cent. of the mines in the country the boxes contained the prescribed contents. The percentage of units where the boxes were of the prescribed standard was cent. per cent. in Orissa, 81 in the Residual Group, 42 in Bihar and only 22 in Mysore.

### 5·8·2. *Ambulance Rooms*

The Mines Rules require every mine employing 500 or more persons to provide and maintain an ambulance room and also prescribe the standard of such rooms. The Survey results show that in the industry as a whole only about 19 per cent. of the mines were under a statutory obligation to provide ambulance rooms. Of these, only about 38 per cent. had actually done so. In addition, 6 per cent. of the mines, though not under a statutory obligation, were found to have provided ambulance rooms. Thus, in the industry as a whole the percentage of mines having an ambulance room was 13. Ambulance rooms were found to exist only in Bihar and the Residual Group. Even though there were a few units under a statutory obligation to provide ambulance rooms in Orissa (30%) and Mysore (12%), there were no such facilities at all.

The ambulance rooms, wherever maintained were under the charge of a full-time or a part-time doctor and also had ancillary staff.

### 5·8·3. *Hospitals/Dispensaries*

There is no statutory obligation with regard to provision of hospital or dispensary facilities in iron ore mines. However, it was found that benevolent managements of nearly 20 per cent. of the mines in the country had provided hospital or dispensary facilities for their employees. The percentage of mines having hospitals or dispensaries was 15 in Bihar, nearly 12 in Mysore and about 5 in Orissa. None of the mines covered in the Residual Group had any dispensary or hospital.

The hospitals/dispensaries wherever maintained were mostly under the charge of full-time doctors assisted by such staff as compounders, nurses, etc. Some of the mines, not having their own hospital or dispensary, had contract with some local medical practitioners or hospitals in the adjoining areas for the treatment of their workers. Such an arrangement existed in nearly 42 per cent. of the mines in Bihar, 22 per cent. in Mysore, 62 per cent. in Orissa, and nearly 19 per cent. in the Residual Group or in 35 per cent. of the mines in the country as a whole. In addition, some *ad hoc* arrangement for the treatment of workers existed in Mysore and also in the Residual Group. In these mines the managements either supplied medicines to needy workers or arranged for their treatment on an *ad hoc* basis.

Since the industry employs a significant proportion of contract labour, information relating to medical facilities available to them was also collected during the Survey. The results reveal that the facilities were available to contract labour in the same manner as were available to direct labour in nearly 65 per cent. of the total number of mines employing contract labour and providing medical facilities.

### (b) NON-OBLIGATORY

#### 5.9. Recreation Facilities

The Labour Investigation Committee reported the existence of arrangements for sports, swimming baths, tennis, badminton and football in a few mines surveyed by them. The present Survey shows that recreation facilities existed in nearly 57 per cent. of the iron ore mines in the country.

Recreation facilities were reported in all the units surveyed in Orissa, 78 per cent. of the mines in Mysore, 31 per cent. in the Residual Group and in only 15 per cent. in Bihar. Generally the mines which had not provided these facilities were small establishments.

In Bihar, Orissa and the Residual Group, the facilities provided in the concerned units were generally in the form of indoor games, out-door games as well as cultural programmes on festive occasions. Of the mines providing such facilities in Mysore, 15 per cent. had arrangements for indoor and out-door games and the rest (85%) organised only religious programmes on festive occasions. Thus, in the industry as a whole the position was that of the mines providing recreation facilities, 28 per cent. had arrangements for indoor games and out-door games, 37 per cent. for indoor games, out-door games as well as cultural programmes, and the rest (35%) only for religious programme such as '*pūja*'.

Expenses on the above items were met entirely by the managements of the mines in the Residual Group. In Mysore, 85 per cent. of such mines met the cost themselves and in the rest from the Welfare Funds. Similarly, in nearly 85 per cent. of the mines in Orissa, the expenses were met by the managements, and in the rest (15%) jointly by the managements and workers. In Bihar, on the other hand, the entire expenses were met jointly by the employers and workers only.

### 5.10. *Educational Facilities*

At the time when the Labour Investigation Committee conducted their enquiry, there was one middle school at Noamundi, one upper primary school at Gorumahisani and one lower primary school at Gua for the education of workers' children. No information for the country as a whole is available in the Report of the Committee. The findings of the present Survey show that in the industry in the country, as a whole, educational facilities existed in only about 20 per cent. of the mines. As regards individual centres, the percentage of units providing schools was 54 in Orissa, 15 in Bihar and 11 in Mysore. None of the sampled units in the Residual Group provided any educational facilities.

Except in the case of Mysore, where there were lower middle schools, only primary schools were provided by all the mines in other centres. Education was free in all these schools. In a few mines in Orissa, articles such as slates, books, etc., were also supplied free to children. Such units accounted for nearly 31 per cent. of the mines providing educational facilities in the industry as a whole.

### 5.11. *Adult Education*

Except in one sampled unit in Bihar, where there was an adult education centre, this facility was entirely absent in the industry.

### 5.12. *Other Facilities*

#### 5.12.1. *Grainshops*

Arrangements for the sale of food-grains through grainshops existed in all the mines in Orissa and in about 15 per cent. of the mines in Bihar. In these mines grains were supplied at subsidised rates. In other centres, no such facility existed. Thus, it is estimated that in the country as a whole grainshops existed in about 2.9 per cent. of the mines.

#### 5.12.2. *Co-operative Stores/Credit Societies*

Co-operative store for the supply of food and other articles was reported only in one sampled unit in Bihar and in other centres they were totally absent. Similarly, co-operative store-cum-credit society was found to exist only in one sampled unit in Mysore.

### 5.13. *Transport Facilities*

With the exception of one large mine in Bihar, no other mine in the country was found to have made transport arrangements for bringing workers from their residence to work-sites and back.

### 5.14. *Housing*

The Labour Investigation Committee during the course of their enquiry noticed that housing was provided by the companies as well as by the contractors. The Committee observed that the housing provided by the companies was mostly satisfactory but that provided by the contractors was poor. Data relating to housing facilities provided by the employers at the time of the present

Survey show that in the industry as a whole housing facilities existed in nearly 88 per cent. of the mines in the country. The following Statement (5·2) gives details for the different centres:

### STATEMENT 5·2

#### *Proportion of Iron Mines Providing Housing Accommodation to their Employees—1962-63*

Centre	Number of mines	Per-centage of mines provid-ing houses	Esti-mated number of houses provided	Percentage of houses with			Esti-mated number of workers in the industry as on 30th June, 1962	Per-centage of workers out of Col. (8), who were allotted houses by the mana-gements
				One room	Two rooms	Three rooms or more		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Bihar ..	13	100·0	3,450	85·9	12·6	1·5	8,667	58·7
2. Mysore ..	26	77·9	1,863	83·3	12·7	4·0	4,076	61·5
3. Orissa ..	23	100·0	7,472	92·8	5·9	1·3	14,109	44·3
4. Residual ..	24	81·2	641	87·5	3·1	9·4	5,018	15·1
5. All-India ..	86	88·1	13,426	89·4	8·5	2·1	31,870	45·8

It is evident from the statistics given in Statement 5·2 that about 89 per cent. of the estimated total number of houses were single room tenements, 8·5 per cent. had 2 rooms and the rest had three or more rooms. Single room tenements were usually given to ordinary production workers and those with 2 rooms to clerical and other supervisory staff. Managerial personnel were invariably enjoying better accommodation facilities.

In terms of proportion of workers housed, it is estimated that in the industry as a whole out of an estimated total number of 31,870 employees in June 1962, almost 46 per cent. had been allotted housing accommodation by the employers.

In the matter of providing accommodation to employees, managerial personnel and staff got preference over others for whom the extent of housing always depended upon the availability of the houses. Housing accommodation wherever provided was all free of rent.



## CHAPTER VI

### SOCIAL SECURITY

When the Labour Investigation Committee conducted their investigation, workers in iron ore mines had security against accidents by virtue of the provisions of the Workmen's Compensation Act, 1923. Women workers, in addition, were entitled to maternity benefits under the Mines Maternity Benefits Act, 1941. Largely as a result of statutory measures adopted by the Government of India and to a certain extent, as a result of adjudication awards, workers employed in the industry now enjoy a fair measure of social security. The following paragraphs trace the main developments and describe the existing position in the industry.

#### 6.1. *Provident Fund*

At the time of enquiry by the Labour Investigation Committee virtually none of the iron ore mines had any provident fund schemes. The Employees' Provident Fund Act, 1952 was extended to this industry on 30th November, 1957. Analysis of the information relating to the year of introduction of the provident fund schemes in the units surveyed shows that except in one\* sampled unit in Bihar, in all other units the provident fund schemes were introduced only after the industry was brought under the scope of the Employees' Provident Funds Act, in 1957. Data collected during the course of the Survey show that provident fund schemes existed in about 78 per cent. of the mines in the country. Details are given in the following Statement 6.1:

#### STATEMENT 6.1

#### *Estimated Proportion of Iron Ore Mines Having Provident Funds in 1962-63*

Centre	Number of mines	Estimated percentage of mines having provident fund schemes	Percentage distribution of units having provident fund according to type			Estimated number of workers employed in the industry on 30th June, 1962	Percentage of workers out of col. (7), who were members of provident funds
			Employees' Provident Fund scheme	Employees' Provident Fund schemes as well as other schemes	Others		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Bihar ..	13	36.5	57.9	..	42.1	8,667	82.8
2. Mysore ..	26	77.9	100.0	..	..	4,076	12.8
3. Orissa ..	23	100.0	100.0	..	..	14,109	42.0
4. Residual ..	24	81.2	100.0	..	..	5,018	34.2
5. All-India	86	78.5	97.0	..	3.0	31,870	48.1

\*One of the sampled units in Orissa also had introduced its own provident fund scheme in 1935, but the benefit was restricted to only managerial and senior technical personnel and other staff and workers did not get the benefits.

As would be seen from the Statement of the mines having provident funds, 97 per cent. had the statutory schemes. Consequently, the categories of workers covered, rate of contribution and qualifying conditions fixed for becoming members of provident funds were all in accordance with the provisions of the scheme framed under the Employees' Provident Fund Act. Only one of the sampled mines in Bihar had a provident fund scheme of its own. It was allowed to continue its scheme as its provisions were more favourable to workers. Under this scheme the rate of contribution was 8 per cent. as against 6½ per cent. prescribed under the statutory scheme.

The main reasons for the low proportion of the units having provident fund schemes and also a very low proportion of workers who were enjoying the provident fund benefits in some of the centres were:—

- (i) frequent closures of the iron ore mines or changing of line of production (e.g., switching over from extraction of iron ore to manganese ore) by the managements;
- (ii) high labour turnover; and
- (iii) employment of large number of workers purely on a casual or temporary basis for short durations.

On the basis of the statistics collected, it is estimated that out of a total number of 31,870 employees in June, 1962, about 48 per cent. were members of provident funds. The proportion of workers enjoying provident fund, was the highest (83 per cent.) in Bihar and the lowest (13 per cent.) in Mysore.

#### 6.2. Pension

None of the sampled units was found to be having any pension scheme for their employees.

#### 6.3. Gratuity

Gratuity schemes were found to exist in a few mines in all the centres except those in the Residual Group. The percentage of mines having gratuity scheme was nearly 10 in the industry in the country as a whole. The following Statement 6.2 gives details in respect of different centres.

STATEMENT 6.2  
*Proportion of Iron Ore Mines Having Gratuity Schemes, 1962-63*

Centre	Number of mines	Percentage of mines having gratuity schemes	Percentage of mines having gratuity schemes and paying gratuity on			
			Death	Retirement	Resignation	Termination of service by employers
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar .. ..	13	15.4	100.0	100.0	..	100.0
2. Mysore .. ..	26	11.5	100.0	100.0	..	..
3. Orissa .. ..	23	15.2	100.0	100.0	100.0	100.0
4. Residual .. ..	24	..	..	..	..	..
5. All-India .. ..	86	9.9	100.0	100.0	41.2	64.7

All the schemes existing in the different centres were of a regular nature. Since the qualifying conditions, rate of payment, etc., differed as between the different centres, they are discussed below separately for each centre.

(a) *Bihar*—In all the concerned mines gratuity was being paid by the managements in the case of death, retirement or termination of service. The number of years of qualifying service was 15 in the case of retirement and 10 in the case of death or termination of service by managements. The rate of payment was usually  $\frac{1}{2}$  month's wages for every completed year of service upto 20 years of service, plus  $\frac{1}{4}$  month's wages for each completed year of service between 21 and 25 years and an extra half a month's wages for each year of service between 25 and 30 years. Employees who had a service of over 30 years received gratuity at the rate of  $\frac{3}{4}$  month's wages for every completed year of service. The gratuity scheme was applicable to direct labour only and contract labour did not get this benefit.

(b) *Mysore*—In the unit where the system was in vogue, gratuity was payable to all categories of workers directly employed (i.e., excluding contract labour) at the rate of half a month's pay for each completed year of service subject to a maximum of 15 months' pay. The maximum amount of gratuity was fixed at Rs. 10,000. The qualifying service fixed was completion of 15 years of service. Gratuity was payable on retirement or death. No gratuity was allowed in the case of dismissal of workers or on voluntary resignation, unless resignation was on account of ill-health.

(c) *Orissa*—In the unit where there was a scheme, gratuity was payable in accordance with the agreement reached between workers and employers. The minimum qualifying period of service fixed was 15 years and the rate of payment was 15 days' basic wages in the case of daily-rated workers and half a month's salary in the case of monthly-rated workers, subject to a maximum of 15 months' wages or salary, as the case may be. Gratuity was payable on death, retirement, resignation or termination of services by managements on grounds of ill-health. Dismissal of workers was not considered for purposes of gratuity.

#### 6.4 Maternity Benefits

Women workers employed in the iron ore mines were at the time of the present Survey entitled to maternity benefits under the provisions of the Mines Maternity Benefits Act, 1941.\* The qualifying condition was 6 months' service preceding the day of delivery. The rate of payment was annas 12 (Re. 0.75) per day for a total period of 8 weeks. Data collected during the Survey relating to maternity benefits are given in the following Statement.

#### STATEMENT 6.3

#### *Proportion of Iron Ore Mines Which Paid and Women who Received Maternity Benefits in 1962-63*

Centre	Number of mines	Percentage of mines employing women		Estimated number of women employed	Percentage of women paid maternity benefits
		Total	Which paid maternity benefit		
(1)	(2)	(3)	(4)	(5)	(6)
1. Bihar .. ..	13	57.7	26.7	1,915	32.0
2. Mysore .. ..	26	100.0	..	1,002	..
3. Orissa .. ..	23	100.0	76.8	4,582	16.5
4. Residual .. ..	24	100.0	16.7	475	4.2
5. All-India .. ..	86	93.6	29.4	7,974	17.4

\*With effect from 1st November, 1963, the Maternity Benefit Act, 1961 has been made applicable to the mines.

Since the payment of maternity benefits was regulated by law, the qualifying conditions, rate of payment, etc., were in accordance with the law. In fact, in some of the centres (e.g., Orissa) women workers were paid, in addition to cash payment of Re. 0.75 per day, a maternity bonus at the rate of Rs. 3. In Bihar, women were allowed rice concession also in addition to cash benefit.

It will be seen from Statement 6.3 that no case of maternity benefit was reported in Mysore even though women were employed in all the mines. The main reason for this seems to be the fact that a good majority of workers were casual with a brief duration of service.

#### 6.5. Industrial Accidents

During the course of the Survey information was collected regarding accidents which occurred during the year 1961. It is estimated that in the industry as a whole, industrial accidents occurred in nearly 20 per cent. of the mines. The percentage was 12 in Mysore, 15 each in Bihar and Orissa and 35 in the Residual Group. The following Statement 6.4 gives the nature and rate of accidents per thousand workers in the different centres.

STATEMENT 6.4

*Estimated Proportion of Workers Involved in Accidents by Nature of Accidents in the Iron Ore Mining Industry -1961*

	Estimated average daily number of persons employed in the industry in 1961	Number of workers involved in accidents per thousand workers employed resulting in			
		Death	Permanent Disability	Temporary Disability	Total
(1)	(2)	(3)	(4)	(5)	(6)
1. Bihar ..	10,222	0.59	3.23	14.77	18.59
2. Mysore ..	4,586	..	1.09	4.36	5.45
3. Orissa ..	19,466	0.21	..	33.39	33.60
4. Residual ..	3,591	..	..	412.14	412.14
5. All-India ..	37,865	0.27	1.00	60.7	62.04

Accidents resulting in death and permanent disability constituted a very small proportion and temporary disability accounted for almost all the cases of accidents in the different centres.

#### 6.6. Occupational Diseases

Except for a few mines in Mysore, no other mine in any other centre reported the existence of occupational diseases. In Mysore, the occupational disease reported was silicosis. The processes which caused the disease were reported to be blasting and drilling. No compensation was paid in the case of this disease in any of the units during 1962.

## CHAPTER VII

### INDUSTRIAL RELATIONS

During the post-war years, specially since the country gained Independence, considerable attention has been paid to the promotion of industrial peace and the creation of favourable atmosphere for the growth of healthy labour-management relations. The activities of Government in this context were not confined merely to the enactment of laws for speedy settlement of disputes, framing of standing orders, constitution of works or joint committees, appointment of Labour or Welfare Officers, but extended to measures designed to promote the growth of healthy trade unionism and encourage direct negotiations. The following paragraphs briefly describe some of the aspects of industrial relations in the industry at the time of the Survey.

#### 7.1. *Industrial Disputes*

Separate statistics relating to industrial disputes are available for the Iron Ore Mining Industry only from 1959 and they are given below.

#### STATEMENT 7.1

#### *Industrial Disputes in Iron Ore Mining Industry Since 1959*

Year					Number of disputes	Number of workers involved	Number of man-days lost
(1)					(2)	(3)	(4)
1959	..	..	..	..	5	4,761	49,979
1960	..	..	..	..	3	2,096	59,916
1961	..	..	..	..	1	75	600
1962	..	..	..	..	2	661	6,641
1963	..	..	..	..	3	1,623	2,346

*Source* -- Indian Labour Statistics.

It will be observed that man-days lost during 1959 and 1960 were considerable. The main factor responsible for a heavy loss of man-days during 1959 was a strike in a few mines in Bihar on account of protest against the managements for non-payment of bonus at the increased rate. The high figure of man-days lost in 1960 is attributable to a major strike in a large mine in Orissa in 1960 to secure fulfilment of certain demands, including the demand for abolition of contract labour. This strike alone caused a loss of over 50 thousand man-days. Barring these, it would appear that the industry has been enjoying more or less peaceful industrial relations.

#### 7.2. *Trade Unionism*

There is no reference in the report of the Labour Investigation Committee about the existence of any trade unions in the industry at the time of their survey. Perhaps nothing worth mentioning existed at that time. Information concerning trade unions collected during the course of this Survey shows that

in the industry as a whole. nearly 25 per cent. of the mines had trade unions. The following Statement gives details of trade unions, their membership, etc., in the different centres.

## STATEMENT 7.2

*Extent of Trade Unionism in Iron Ore Mines, 1962-63*

Centre		Number of mines	Percentage of mines where workers were members of trade unions	Estimated No. of workers employed in the industry on 30-6-62	Percentage of workers who were members of trade unions	Percentage of units where unions were recognised by the manage- ments
(1)		(2)	(3)	(4)	(5)	(6)
1. Bihar	.. ..	13	15.4	8,667	99.7	100.0
2. Mysore	.. ..	26	11.5	4,076	8.5	100.0
3. Orissa	.. ..	23	53.6	14,109	17.1	71.6
4. Residual	.. ..	24	16.7	5,018	40.9	..
5. All-India	.. ..	86	24.8	31,870	42.2	64.8

The proportion of mines where workers were unionised was the highest (54%) in Orissa, and in all other centres, it ranged from 12 per cent. in Mysore to 17 per cent. in the Residual Group. Viewed from the point of extent of trade unionism among workers, the Survey results show that the proportion of workers who were members of trade unions was the highest in Bihar where almost all workers were reported to be members of trade unions. The next important centre was the Residual Group where about 41 per cent. of the workers were members of unions. In Orissa and Mysore, only a small proportion of workers had joined unions. The chief reason for the low percentage of membership seems to be preponderance of contract labour in Orissa and predominance of casual labour in Mysore.

Recognition of trade unions was accorded by all the concerned managements of mines in Bihar and Mysore. In Orissa only about 72 per cent. of the mines had recognised the unions. Not a single management of the sampled mines in the Residual Group had accorded recognition to unions of their workers. The main reason adduced by the managements in this centre was that the unions had not approached them for any recognition.

As regards the activities of trade unions, it was found that in all the centres they were mainly engaged in securing claims under the various labour laws. A few unions in Orissa and Mysore, however, were found to be devoting considerable attention to the welfare of workers, imparting of adult education, provision of recreational facilities and giving of financial aid in the form of loan or donation to their distressed members, etc. The unions in Mysore were reported to be not only taking active interest in all matters of labour welfare but also contributing towards maintenance of industrial peace. In Bihar some of the unions were giving financial relief to their members in times of need.

## CHAPTER VII

### INDUSTRIAL RELATIONS

During the post-war years, specially since the country gained Independence, considerable attention has been paid to the promotion of industrial peace and the creation of favourable atmosphere for the growth of healthy labour-management relations. The activities of Government in this context were not confined merely to the enactment of laws for speedy settlement of disputes, framing of standing orders, constitution of works or joint committees, appointment of Labour or Welfare Officers, but extended to measures designed to promote the growth of healthy trade unionism and encourage direct negotiations. The following paragraphs briefly describe some of the aspects of industrial relations in the industry at the time of the Survey.

#### 7.1. *Industrial Disputes*

Separate statistics relating to industrial disputes are available for the Iron Ore Mining Industry only from 1959 and they are given below.

#### STATEMENT 7.1

#### *Industrial Disputes in Iron Ore Mining Industry Since 1959*

Year					Number of disputes	Number of workers involved	Number of man-days lost
(1)					(2)	(3)	(4)
1959	..	..	..	..	5	4,761	49,979
1960	..	..	..	..	3	2,096	59,916
1961	..	..	..	..	1	75	600
1962	..	..	..	..	2	661	6,841
1963	..	..	..	..	3	1,623	2,346

Source :—Indian Labour Statistics.

It will be observed that man-days lost during 1959 and 1960 were considerable. The main factor responsible for a heavy loss of man-days during 1959 was a strike in a few mines in Bihar on account of protest against the managements for non-payment of bonus at the increased rate. The high figure of man-days lost in 1960 is attributable to a major strike in a large mine in Orissa in 1960 to secure fulfilment of certain demands, including the demand for abolition of contract labour. This strike alone caused a loss of over 50 thousand man-days. Barring these, it would appear that the industry has been enjoying more or less peaceful industrial relations.

#### 7.2. *Trade Unionism*

There is no reference in the report of the Labour Investigation Committee about the existence of any trade unions in the industry at the time of their survey. Perhaps nothing worth mentioning existed at that time. Information concerning trade unions collected during the course of this Survey shows that

in the industry as a whole. nearly 25 per cent. of the mines had trade unions. The following Statement gives details of trade unions, their membership, etc., in the different centres.

## STATEMENT 7·2

*Extent of Trade Unionism in Iron Ore Mines, 1962-63*

Centre		Number of mines	Percentage of mines where workers were members of trade unions	Estimated No. of workers employed in the industry on 30-6-62	Percentage of workers who were members of trade unions	Percentage of units where unions were recognised by the manage- ments
(1)		(2)	(3)	(4)	(5)	(6)
1. Bihar	.. ..	13	15·4	8,667	99·7	100·0
2. Mysore	.. ..	26	11·5	4,076	8·5	100·0
3. Orissa	.. ..	23	53·6	14,109	17·1	71·6
4. Residual	.. ..	24	16·7	5,018	40·9	..
5. All-India	.. ..	86	24·8	31,870	42·2	64·8

The proportion of mines where workers were unionised was the highest (54%) in Orissa, and in all other centres, it ranged from 12 per cent. in Mysore to 17 per cent. in the Residual Group. Viewed from the point of extent of trade unionism among workers, the Survey results show that the proportion of workers who were members of trade unions was the highest in Bihar where almost all workers were reported to be members of trade unions. The next important centre was the Residual Group where about 41 per cent. of the workers were members of unions. In Orissa and Mysore, only a small proportion of workers had joined unions. The chief reason for the low percentage of membership seems to be preponderance of contract labour in Orissa and predominance of casual labour in Mysore.

Recognition of trade unions was accorded by all the concerned managements of mines in Bihar and Mysore. In Orissa only about 72 per cent. of the mines had recognised the unions. Not a single management of the sampled mines in the Residual Group had accorded recognition to unions of their workers. The main reason adduced by the managements in this centre was that the unions had not approached them for any recognition.

As regards the activities of trade unions, it was found that in all the centres they were mainly engaged in securing claims under the various labour laws. A few unions in Orissa and Mysore, however, were found to be devoting considerable attention to the welfare of workers, imparting of adult education, provision of recreational facilities and giving of financial aid in the form of loan or donation to their distressed members, etc. The unions in Mysore were reported to be not only taking active interest in all matters of labour welfare but also contributing towards maintenance of industrial peace. In Bihar some of the unions were giving financial relief to their members in times of need.



### 7.3. *Agreements*

Collective agreements were reported only from some large mines in Orissa and Mysore. The agreements concluded in these mines covered some major items such as revision of wages, payment of bonus and gratuity, and also covered matters like leave and holidays with pay.

### 7.4. *Standing Orders*

Under the Industrial Employment (Standing Orders) Act, 1946, all mines employing 100 or more workers are required to frame standing orders for their employees. The Survey results show that in the industry as a whole, nearly 50 per cent. of the mines were under a statutory obligation to frame standing orders and all of them had done so. In addition, about 15 per cent. of the mines, though not statutorily obliged, had also framed standing orders. Thus it is estimated that nearly 65 per cent. of the iron ore mines had standing orders. The standing orders, wherever framed, covered all categories of employees, and were duly certified by the competent authorities.

### 7.5. *Welfare Officers*

Under the Mines Rules, every mine wherein 500 or more workers are ordinarily employed should appoint a suitably qualified person as a welfare officer. The Rules also prescribe qualifications, duties, etc., of welfare officers. On the basis of the information collected during the Survey, it is estimated that in the industry as a whole nearly 19 per cent. of the mines were statutorily obliged to appoint welfare officers, and out of these, 78 per cent. had appointed welfare officers. The units which were statutorily obliged but did not appoint any welfare officer were in Orissa. The reason given by the concerned managements was that in their mines majority of the workers were contract labour and that workers engaged through contractors were controlled by the contractors and as such appointment of a welfare officer was not necessary. The duties of the welfare officers, wherever appointed, were generally the same as prescribed in the Mines Rules.

### 7.6. *Works Committees*

Under the Industrial Disputes Act, 1947, it is necessary for all establishments employing 100 or more workers to constitute works committees. The Survey results show that in the industry as a whole nearly 50 per cent. of the mines were under a statutory obligation to constitute works committees and out of these, 78 per cent. had actually formed such committees. All the mines surveyed in Bihar and the Residual Group, which were under a legal obligation to constitute works committees, had complied with the law. In Orissa and Mysore the compliance was only partial, the percentage of units having works committee being 72 and 34 respectively. The reason given by the defaulting managements was that they employed large number of contract labour who were controlled by the contractors, and as such constitution of works committees was not considered necessary. There was no works committee in any mine which was not under a legal obligation.

The general impression gathered during the Survey was that in most of the centres the committees were not functioning satisfactorily. It was reported that in some of the mines meetings were not convened as frequently as required

In some cases even if meetings were convened there was no quorum showing the lack of interest of the parties. It was reported by some of the managements that workers were not taking interest in works committees.

In mines where these committees were functioning satisfactorily, items generally discussed related to day-to-day improvement of working conditions, welfare facilities, etc. Decisions taken were generally reported to have been implemented by the managements.

#### *7.7. Other Committees*

Except for safety committees in a very few units in Bihar and Orissa, no production or any other committee was found to exist in the industry. The main functions of the Safety Committees, which had representatives of managements as well as workers, was to propagate safety measures among workers.

None of the sampled units had associated their workers for the participation in the managements.

#### *7.8. Grievance Procedure*

Except for the provisions contained in the Standing Orders, wherever they existed, rarely any of the mines surveyed was found to have prescribed any definite procedure for the redress of the grievances of workers. The general practice in all the mines, including those where there were standing orders, was that oral complaints were lodged with supervisors who usually settled them. Rarely cases were taken to the manager or owner of the mine. No time limit was found to have been fixed for the disposal of the complaints or for appeal.

## CHAPTER VIII

### LABOUR COST

Information pertaining to labour cost was collected from sampled establishments during the course of the present Survey, in respect of the employees covered under the Mines Act and receiving less than Rs. 400 per month as wages. This was in pursuance of the decision taken by the Study Group on Wage Costs appointed by the Ministry of Labour and Employment in 1959. The enquiry pertaining to labour cost was modelled on the lines of the Study of Labour Costs in the European Industry, made by the International Labour Office in 1956, with such modifications as were considered necessary in the light of conditions in India. For instance, in view of the fact that in India wages are paid on the basis of days instead of hours, data were collected in respect of 'man-days' instead of 'man-hours'. Similarly, it was found in the course of the pilot enquiry that, except for a very few establishments, separate records of premium payments made for leave or holidays, or for days 'not worked' were not maintained and hence these were dropped as separate items and payments made for them were recorded under 'basic wages'. Certain additions were made in the list either on the basis of the decisions of the Study Group referred to above, or to elicit separate information on some of the items on which employers have to incur expenses under labour laws in force in the country, e.g., lay-off, retrenchment compensation, etc.

The Survey was launched in October, 1962 and completed in September, 1963. With a view to maintaining comparability of the data and ensuring uniformity, it was decided to collect data, as far as possible, for the year ending with the specified date, viz., 30th June, 1962. However, in view of the fact that financial years of the establishments do not generally coincide with the year ending with the specified date of the Survey, and since they also differed from unit to unit and area to area, the field staff were instructed that wherever it was difficult to cull out the information for the above period, they should collect the data for the latest period of 12 months for which information was available subject to the condition that the data so collected should, as far as possible, cover a major part of the twelve months ending on the specific date. Consequently, data were collected for a period of 12 months ending with the specified date or a major portion of which fell during the year ending with the specified date.

It may also be mentioned here that with a view to forming a better estimate of labour cost, salaries and allowances, etc., of those persons who were employed in connection with any welfare item, amenity, etc., even though they were covered under the Mines Act and were receiving less than Rs. 400 per month, were not included in the general heads "Wages", "Bonuses" and "Other Cash Payments" along with the similar amounts paid to workers who came within the scope of the study. Expenses incurred in connection with such persons were recorded against the item for which they were employed. Similarly, the man-days worked by such persons were also excluded from the general head 'man-days'.

### 8.1. Labour Cost per Man-day Worked

The following Statement 8.1 gives the estimated labour cost per man-day worked in various centres:-

STATEMENT 8.1

#### *Labour Cost Per Man-day Worked in Iron Ore Mines in 1961-62*

(In Rupees)

Centre								Labour cost per man-day worked
(1)								(2)
1. Bihar	..	..	..	..	..	..	..	4.50
2. Mysore	..	..	..	..	..	..	..	3.08
3. Orissa	..	..	..	..	..	..	..	2.77
4. Residual	..	..	..	..	..	..	..	3.76
5. All-India	..	..	..	..	..	..	..	3.29

The estimated labour cost per man-day worked in the Iron Ore Mining Industry in the country, as a whole, was Rs. 3.29. The labour cost per man-day worked was the highest in Bihar (Rs. 4.50) and the lowest (Rs. 2.77) in Orissa.

### 8.2. Components of Labour Cost

The following Statement 8.2 shows the break-up of labour cost by components in the various centres:-

STATEMENT 8.2

#### *Labour Cost Per Man-day Worked by Components*

Centre		Wages	Premium pay for overtime and late shifts	Bonuses	Other cash payments	Payments in kind	Social security contribu- tions <div>Obligatory</div>
(1)		(2)	(3)	(4)	(5)	(6)	(7)
1. Bihar	..	2.84 (63.11)	0.23 (5.11)	0.36 (8.00)	0.01 (0.22)	0.36 (8.00)	0.19 (4.22)
2. Mysore	..	2.48 (80.52)	0.03 (0.97)	0.13 (4.22)	0.05 (1.62)	*	0.08 (2.60)
3. Orissa	..	2.03 (73.29)	0.01 (0.36)	0.05 (1.81)	0.03 (1.08)	0.19 (6.86)	0.07 (2.53)
4. Residual	..	3.22 (85.64)	..	0.03 (0.80)	0.01 (0.26)	*	0.05 (1.33)
5. All-India	..	2.39 (72.64)	0.05 (1.52)	0.12 (3.65)	0.03 (0.91)	0.19 (5.78)	0.10 (3.04)

STATEMENT 8·2—*contd.*

(In Rupees)

Centre	Social security contributions		Subsidies	Direct benefits	Other payments related to labour cost	Others	Total	
	Non-Obligatory							
	8	9						10
1. Bihar	..	..	0·01 (0·22)	0·47 (10·45)	..	*	0·03 (0·67)	4·50 (100·00)
2. Mysore	..	..	..	0·28 (9·09)	*	*	0·03 (0·98)	3·08 (100·00)
3. Orissa	..	..	*	0·31 (11·19)	..	0·07 (2·52)	0·01 (0·36)	2·77 (100·00)
4. Residual	..	..	..	0·44 (11·70)	..	*	0·0 (0·27)	3·76 (100·00)
5. All-India	..	..	*	0·35 (10·64)	*	0·04 (1·21)	0·02 (0·61)	3·29 (100·00)

NOTE—Figures in brackets are percentages.

\*Indicates that the expenses were less than Re. 0·005.

8·2·1. *Wages*

The term 'wages' includes basic wage, dearness allowance, consolidated wages, incentive or production bonus and attendance bonus. The Bureau desired to collect under this head separate data in respect of man-days actually worked and man-days not worked but paid for. But, in the course of the pilot enquiry, it was found that most of the employers did not maintain separate records of payments made for the days worked and for leave and holiday periods. Consequently, the amount of wages recorded included the sums paid for the days worked as well as for the days not worked but paid for.

It is evident from Statement 8·2 that the component 'wages' alone accounted for about 73 per cent. of the total labour cost. It would also be seen that this proportion was the highest in the Residual Group (86%) and the lowest in Bihar (63%). In the case of Mysore and Orissa, it was 81 per cent. and 73 per cent. respectively. Statement 8·3 gives the break-up of wages cost by sub-components.

## STATEMENT 8·3

*Break-up of Wages Cost by Sub-Components*

(In Rupees)

Centre			Basic wage and dearness allowance or consolidated wages	Incentive or production bonus	Attendance bonus	Total
(1)			(2)	(3)	(4)	(5)
Bihar ..	..	..	2·84 (100·00)	*	..	2·84 (100·00)
Mysore ..	..	..	2·44 (98·39)	0·03 (1·21)	0·01 (0·40)	2·48 (100·00)
Orissa ..	..	..	2·01 (99·01)	0·02 (0·99)	*	2·03 (100·00)
Residual ..	..	..	3·22 (100·00)	..	..	3·22 (100·00)
All-India ..	..	..	2·37 (99·16)	0·01 (0·42)	0·01 (0·42)	2·39 (100·00)

NOTE—Figures in brackets are percentages.

\*Indicates that the expenses were less than Re. 0·005.

Basic wages, dearness allowance, wherever such an allowance was paid separately and consolidated wages alone accounted for nearly 99·2 per cent. of the total wage cost and the rest was shared by incentive and production bonus. In Bihar and the Residual Group, basic wages, dearness allowance and consolidated wages were more or less the sole components. Attendance bonus constituted an insignificant proportion of the total wage cost in the country as a whole.

#### 8·2·2. *Premium Pay for Overtime and Late Shifts*

Under this group, only the premium part of the pay for overtime work, late shifts or work on holidays, etc., was collected. This was the amount received by the workers in addition to their normal pay. For instance, if a worker was paid one and a half times his normal rates of wages for working late hours, only the extra amount paid to him, i.e., one-half in this case, was treated as the premium pay. It will be seen from Statement 8·2 that this component constituted 1·5 per cent. of the total labour cost in the Iron Ore Mining Industry in the country, as a whole. The proportion of this component was the highest in Bihar (5·11%) followed by Mysore (0·97%) and Orissa (0·36%). In the Residual Group no overtime was recorded.

#### 8·2·3. *Bonuses*

Under this head data were collected in respect of payments made in the form of Festival Bonus, Year-end Bonus, Profit Sharing Bonus, etc. It will be seen from Statement 8·2 that in the entire Iron Ore Mining Industry this item constituted 3·6 per cent. of the total labour cost per man-day worked. This item featured in all the four centres of the industry and its proportion to the total labour cost ranged from 0·8 per cent. in the Residual Group to 8 per cent. in Bihar.

#### 8·2·4. *Other Cash Payments*

The figures given in Statement 8·2 show that 'Other Cash Payments' constituted 0·91 per cent. of the total labour cost. They featured in all the four centres of the Industry. The main items included under this head were : Camp Allowance, Rice Concession Allowance, Servant Allowance, Marriage Allowance and House Rent Allowance.

#### 8·2·5. *Payments in Kind*

Expenses on this account constituted 5·8 per cent. of the total labour cost in the industry as a whole. They generally related to supply of food articles and in a few cases supply of kerosene oil and clothes, etc., to workers. The system was mostly in vogue in Orissa and Bihar only.

#### 8·2·6. *Social Security Contributions*

Expenses incurred by employers under this group were recorded separately under two sub-groups, viz., (a) Obligatory, and (b) Non-obligatory. The employers were statutorily obliged to undertake some of the social security measures and expenditures on such obligatory social security contributions were collected under the sub-group 'Obligatory'. Under 'Non-obligatory' those expenses were recorded which the employers were incurring voluntarily. Data collected during the Survey indicate that in the industry, as a whole, the amount spent on social security contributions accounted for about 3 per cent.

of the total labour cost per man-day worked. The following Statement 8.4 shows the estimated cost of social security contributions under each item for which information was collected.

**STATEMENT 8.4**  
*Cost of Social Security Contributions Per Man-day Worked*

(In Rupees)

Centre	Obligatory						Mater- nity benefits
	Provi- dent Fund	Retren- chment Compem- sation	Lay- off Compem- sation	Contri- butions to Emp- loyees' State Insurance Corpora- tion	Compensation for		
					Employ- ment injury	Occupa- tional diseases	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Bihar ..	0.16 (84.21)	..	..	..	0.02 (10.53)	..	0.01 (5.26)
2. Mysore ..	0.08 (100.00)	..	..	..	..	..	..
3. Orissa ..	0.05 (71.43)	*	..	..	0.01 (14.28)	..	0.01 (14.29)
4. Residual ..	0.04 (80.00)	0.01 (20.00)	..	..	*	..	*
5. All-India ..	0.08 (80.00)	*	..	..	0.01 (10.00)	..	0.01 (10.00)

(In Rupees)

Centre	Obligatory				Non- obligatory	Total of obligatory and non- obligatory contribu- tions	Percen- tage of social security contri- butions to total labour cost
	Depen- dants allowance	Gratuity	Others	Total			
	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Bihar ..	..	..	..	0.19 (100.00)	0.01	0.20	4.44
2. Mysore ..	..	*	..	0.08 (100.00)	..	0.08	2.60
3. Orissa ..	..	..	..	0.07 (100.00)	*	0.07	2.53
4. Residual ..	..	..	..	0.05 (100.00)	..	0.05	1.33
5. All-India ..	..	*	..	0.10 (100.00)	*	0.10	3.04

NOTE—Figures in brackets are percentages.

\*Indicates less than Re. 0.005.

It would be seen from figures in Statement 8.4 that the expenses incurred on social security measures were almost entirely those which the employers were required to spend under law and the expenses incurred voluntarily were insignificant.

Of the amount spent on obligatory items, as much as about 80 per cent. was accounted for by provident fund contributions. The balance was shared equally by compensation paid for employment injury and payments made for maternity benefits.

### 8·2·7. *Subsidies*

Expenses incurred by employers on items of subsidies for their employees were the second most important element constituting about 11 per cent. of the total labour cost. Expenses recorded under the head 'subsidies' were those which were incurred by employers for providing certain facilities and services to workers and their families. The facilities and services listed under this head were: Medical and Health Care, Canteens, Restaurants and Other Food Services, Company Housing, Building Funds, Credit Unions and Other Financial Aid Services, Creches, Educational Services, Cultural Services (e.g., Library, Reading Rooms, etc.), Recreational Services (Clubs, Sports, Theatres, Cinema, etc.), Transport, Sanitation (at work places only), Drinking Water Facilities, Vacation Homes, etc. The amounts recorded were net payments made including depreciation but excluding capital expenditure.

In the course of the pilot Survey it was found that employers did not maintain separate records for the above mentioned items or the expenses incurred related not only to persons falling within the scope of the Study but also to others. Due to these difficulties the field staff were asked to obtain estimates from employers, wherever separate data were not available. In case any expenses were incurred on workers covered by the Study as well as on other employees, the amount was estimated on the basis of the proportion which the persons covered under the Study formed to the total employees. The following Statement 8·5 gives the details of the cost of subsidies per man-day worked in various centres.

STATEMENT 8·5  
*Cost of Subsidies Per Man-day Worked*

(In Rupees)

Centre	Medical and health care	Canteens	Restau- rant and other food services	Company housing	Creches	Cultural Services	Recrea- tional services
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Bihar ..	0·12 (25·53)	0·02 (4·26)	..	0·19 (40·42)	0·05 (10·64)	*	*
2. Mysore ..	0·04 (14·29)	0·05 (17·86)	..	0·09 (32·14)	0·02 (7·14)	*	*
3. Orissa ..	0·05 (16·13)	0·01 (3·23)	..	0·20 (64·52)	0·02 (6·45)	*	0·01 (3·23)
4. Residual ..	0·03 (6·82)	0·06 (13·64)	..	0·31 (70·45)	..	*	*
5. All-India ..	0·06 (17·14)	0·02 (5·71)	..	0·20 (57·14)	0·02 (5·72)	*	0·01 (2·86)



STATEMENT 8·5—*contd.*

(In Rupees)

Centre	Trans- port	Sanita- tion	Drink- ing water	Building fund, credit unions, educa- tional services, vacation homes, etc.	Total	Percen- tage of subsidi- es to total labour cost
	(9)	(10)	(11)	(12)	(13)	(14)
1. Bihar .. ..	0·01 (2·13)	0·04 (8·51)	*	0·04 (8·51)	0·47 (100·00)	10·45
2. Mysore .. ..	..	0·01 (3·57)	0·03 (10·72)	0·04 (14·28)	0·28 (100·00)	9·09
3. Orissa .. ..	..	*	0·01 (3·22)	0·01 (3·22)	0·31 (100·00)	11·19
4. Residual .. ..	..	*	0·04 (9·09)	..	0·44 (100·00)	11·70
5. All-India .. ..	*	0·01 (2·86)	0·02 (5·71)	0·01 (2·86)	0·35 (100·00)	10·64

NOTE—Figures in brackets are percentages.

\*Indicates that the expenses were less than Re. 0·005.

It would be seen from Statement 8·5 that the main item of expenditure under the 'Subsidies' group was company housing which accounted for 57 per cent. of the total cost under this group. This was followed by medical and health care which accounted for 17·1 per cent.

8·2·8. *Direct Benefits*

The amounts recorded in this group related to cash payments made by managements to their employees on such occasions as marriage or birth of children or in connection with funeral expenses. Such payments were, however, quite insignificant and were reported only in one sampled mine in Mysore.

8·2·9. *Payments Related to Labour Cost*

Expenses recorded under this group related to cost of recruitment, vocational training, recruitment examination, apprenticeship and training facilities and on-the-job medical services. Expenses under this group were, however, insignificant.

8·2·10. *Others*

Under this head only those expenses which could not be grouped under any of the other heads or sub-heads were recorded. Statement 8·2 would show that these other items amounted to Re. 0·02 out of total labour cost of Rs. 3·29 per man-day worked or 0·61 per cent. of the total cost. The amount recorded related generally to pay, etc., of Labour or Welfare Officers appointed by the mines.

## CHAPTER IX

### SUMMARY OF CONCLUSIONS

**Iron Ore Mining Industry**, which ranks third among the mining industries of India from the point of view of employment has been expanding almost steadily since Independence. Whereas in 1943, it provided employment to about 16 thousand workers, in 1961 the number of workers had increased to 54·5 thousand. The industry is mainly concentrated in Orissa, Bihar and Mysore but there are a few pockets in Andhra Pradesh, Madhya Pradesh, Maharashtra and Rajasthan. On the basis of the data collected during the Survey, it is estimated that the employment strength of the Iron Ore Mining Industry in India was 31·9 thousand in June, 1962. A study of distribution of the working force according to broad occupational groups indicates that almost 84 per cent. of the total number of workers employed in the industry were 'production and related workers (including supervisory)' and the rest belonged to professional, technical, clerical, managerial and watch and ward and other related employees. Women constituted 25 per cent. of the working force, the remaining (75%) were men.

Out of the total estimated number of 26·8 thousand production workers, nearly 56 per cent. were employed on piece rate basis and the rest (44%) on time rates. One of the characteristic features of the pattern of employment in the Iron Ore Mining Industry is the employment of contract labour in large number even for regular jobs of the mining operations. Of the estimated total number 26·8 thousand production workers, about 56 per cent. were those engaged through contractors and the rest (44%) were employed directly by the managements. The proportion of contract labour was the highest (66%) in the Residual Group and the lowest (37%) in Bihar. Information collected during the Survey relating to employment status of production workers employed directly by the managements *i.e.*, excluding contract labour indicates that 61 per cent. of them were permanent, 30 per cent. temporary and the remaining (9%) casual. As regards length of service, it is estimated that in the industry as a whole, nearly 42 per cent. of the production workers employed direct, were in the service group 'less than one year'. In fact, majority of workers were having only less than 1 year service in all centres except Bihar where persons with 5 or more but less than 10 years of service constituted the bulk.

The absenteeism rate was 17 per cent. in the industry as a whole; it was 17·6 per cent. in Bihar, 17·1 per cent. in the Residual Group, 16·7 in Orissa and 12·5 in Mysore. The rate of accession and separation was of the order of 15 and 14 per cent. respectively in the industry as a whole.

Information collected during the Survey relating to the duration after which wages of workers were paid in the industry indicates that the predominant pay period in all the centres except Mysore was a week. Nearly 70 per cent. of the workers received their wages once a week, and the rest (30%) once a month. In Mysore the predominant pay period was month. Wages in the

Iron Ore Mining Industry still remain unregulated and the Minimum Wages Act, 1946 is not applicable to the industry. Wage revisions, wherever taken place, were mostly at the discretion of the managements.

It is estimated that the average daily earnings of a worker in the industry were Rs. 2.75; the average daily earnings of all workers ranged from Rs. 2.26 in the Residual Group to Rs. 3.32 in Bihar. The average daily earnings of production workers and the lowest paid workers were Rs. 2.81 and Rs. 1.59 respectively. Clerical employees in the industry as a whole earned Rs. 6.19 per day while watch and ward employees received Rs. 2.25 per day on an average. Information relating to components of earnings indicates that 'wages', i.e., basic wage, dearness allowance and consolidated wages constituted almost 89 per cent. of the total daily earnings of a worker. Items such as overtime pay, food grain concession, and other cash allowances such as servant allowance, rice allowance, locality allowance, heat allowance, etc., accounted for the rest (i.e., 11%) of the average daily earnings.

The practice of **paying** dearness allowance, as a separate component was not very much in vogue in the industry.

The system of paying annual bonus to workers existed in 60 per cent. of the mines in the country.

At the time of the Survey, almost 98 per cent. of the mines worked only one shift and the rest three shifts. In fact, the three-shift system existed only in a few mines in Bihar. Hours of work were 8 for direct as well as contract labour in all the mines surveyed in the different centres. The spreadover was 8 to 9 hours in 58 per cent. of the mines and more than 9 hours in the rest (42%). With the exception of a very negligible proportion of mines all others granted rest interval to their employees. The defaulting mines were only in Bihar. Timings of work were not being observed in the case of directly employed workers in nearly 12 per cent. of the mines. So far as contract labour is concerned defaults were noticed in 28 per cent. of the mines employing such workers.

Though the law makes it obligatory for the management to make conservancy arrangements, it was found that in the industry as a whole, only 81 per cent. of the mines had provided latrines. The defaulters were mainly in Mysore and the Residual Group. Separate arrangements for women workers existed in all the mines in Bihar and Orissa. In other centres compliance was only partial. The proportion of units providing urinals was found to be low in all the centres of the industry.

Workers at the time of present Survey enjoyed statutory benefit of annual leave with wages under the Mines Act. Although the system of granting annual leave existed in all the mines surveyed, it was found that only about 26 per cent. of the workers employed in the industry enjoyed the benefit during the year 1961. The proportion of workers enjoying leave was the highest (57%) in Bihar, and the lowest (12%) in Mysore. In addition, the system of granting sick leave, casual leave, and national and festival holidays, all with pay, was also in vogue in the industry, the respective percentage of units granting such leave being 59, 45 and 100 in the country as a whole. Casual and sick leave were generally restricted to permanent workers and monthly

rated staff only. There was a universal practice of granting national and or-festival holidays with pay to all workers. The number of days allowed, however, varied and ranged from 2 to 8. Only one of the State-owned mine granted furlough leave. All the mines in the country were found to be complying with the law in regard to grant of weekly off to their employees.

Drinking water facilities were provided in all the mines in the different centres. Generally water for the purpose was kept in buckets or drums. Arrangements for the supply of cool water in summer months existed in nearly 36 per cent. of the mines in the industry. Washing and bathing facilities were found to exist in only a few mines in Mysore.

It is estimated that in the industry as a whole, only about 19 per cent. of the mines were under a statutory obligation to provide canteens and nearly 78 per cent. of these had actually provided them. In addition, about 26 per cent. of the mines, though not statutorily obliged, had also provided canteen facilities to their employees. A note-worthy feature was that nearly 76 per cent. of the canteens served meals also. These as well as the rest sold tea, coffee and snacks. Items were sold generally on a 'no profit no loss' basis. Location of the canteens and general hygienic conditions were found to be generally satisfactory in almost all the centres.

Creche facilities were found to have been provided only in 59 per cent. of the mines employing women in the industry as a whole. Defaulters were mostly small mines located in Bihar, Mysore and the Residual group.

Of the mines having creche facilities and employing contract labour, nearly 68 per cent. of the units extended the creche facilities to contract labour also. The standard of creche facilities varied from centre to centre and there was one deficiency or the other in the various centres.

Provision of rest shelters was, according to the results of the Survey, obligatory for nearly 38 per cent. of the mines in the country as a whole and all the units had complied with the law.

In the matter of providing first-aid boxes or cupboards, all the mines surveyed were found to be complying with the law, though the contents of the first aid boxes were in conformity with the law only in 58 per cent. of the mines.

The first-aid boxes were under the charge of trained first-aiders in all the centres except Mysore. In Mysore, the compliance was only partial. Only a little over one-third of the mines legally required to maintain ambulance rooms had done so. The law was being totally disregarded in this matter in Orissa and Mysore. Even though there is no statutory obligation to provide hospitals or dispensaries, yet it was noticed that in nearly 20 per cent. of the mines such facilities existed for the workers. Nearly 35 per cent. of the mines have entered into contracts with the hospitals/dispensaries or medical practitioners of the adjoining areas for giving medical treatment to their workers. Nearly 65 per cent. of the mines providing medical facilities and employing contract labour extended the same benefits to contract labour as to their directly employed workers.

Recreation facilities were reported in nearly 57 per cent. of the mines in the country. The type of facilities were indoor and out-door games in nearly 28 per cent. of the mines, indoor games, out-door games as well as some cultural programmes in about 37 per cent., and in the rest (35%) only religious programme such as *pūja* was arranged. The expenses on these items were entirely met by the managements in nearly 83 per cent. of the mines and in the rest they were met jointly by workers and employers or from the welfare funds of the units wherever such funds existed.

Educational facilities were found to exist in 54 per cent. of the mines in Orissa, 15 per cent. in Bihar and 11 per cent. in Mysore. Generally primary schools alone were run by the managements in the different centres and everywhere no fees were being charged.

Adult Education centres were almost non-existent in the industry. Grain-shops were found to exist only in a few units in Bihar and Orissa and Co-operative Societies in one mine each in Bihar and Mysore.

Transport facility was provided only in one sampled unit of Bihar.

It is estimated that in the industry as a whole, nearly 88 per cent. of the mines had provided housing accommodation to a certain proportion of their workers. This proportion varied from 15 per cent. in the Residual Group to 61.5 per cent. in Mysore. The percentage of workers allotted houses by managements in the industry as a whole was nearly 46. About 89 per cent. of the houses provided were single-room tenements and the rest had 2 or more rooms. No rent was charged for the houses provided.

Workers at the time of the present Survey were found to be enjoying not only security in the case of industrial accidents and maternity, but also provident fund and gratuity. On the basis of the data collected during the Survey it is estimated that about 78 per cent. of the mines had provident funds covering nearly 48 per cent. of the total number of workers employed in the industry in June, 1962. With the exception of one sampled unit in Bihar which has a provident fund scheme of its own, all other mines in the country had provident fund schemes framed under the Employees' Provident Fund Act 1952. No case of pension was reported in any of the sampled units. Gratuity schemes, on a regular basis existed in nearly 10 per cent. of the mines in the industry. They existed only in large mines in Bihar, Orissa and Mysore. No such schemes existed in any mine in the Residual Group.

It is estimated that in the industry as a whole, about 29 per cent. of the mines employing women, paid maternity benefits during 1962-63 and nearly 17 per cent. of the total number of women workers employed in the industry enjoyed the benefits.

Information collected during the Survey relating to industrial accidents indicates that almost all the persons involved in accidents suffered from temporary disability and there were very stray accidents which caused permanent disability or death. Except for a few mines in Mysore, no occupational disease was reported in any centre. In Mysore silicosis was reported to be an occupational disease. However, no case of payment of compensation was reported during the year 1962.

Trade unions were found to exist in nearly one-fourth of the total number of mines in the country and about 42 per cent. of the total number of workers employed in the industry in June 1962 were members of the trade unions. By and large the main activity of the trade unions was to secure claims of workers under various labour laws. In Mysore and Orissa, however, unions were found to be devoting considerable attention towards the welfare of workers, imparting adult education and giving financial relief to their distressed members.

Collective agreements were reported only in a few large mines of Orissa and Mysore.

All the mines which were under a statutory obligation to frame standing orders had complied with the law. Welfare officers were appointed in nearly 78 per cent. of the mines which were under a legal obligation to appoint such officers. Works Committees were found to exist in about 78 per cent. of the mines which were required to constitute under the law. No other committees, excepting safety committee in a few units in Bihar, were reported in any of the centres.

Except for the provisions contained in the standing orders, wherever they existed, there was no definite prescribed procedures for the redress of grievances of workers employed in the different centres.

Data pertaining to labour cost collected in respect of workers covered under the Mines Act and receiving less than Rs. 400 per month show that the labour cost per man-day worked was Rs. 3.29 in the industry in the country as a whole of this sum, 'wages' element constituted as much as 72.64 per cent. Other important items were subsidies (10.64), payments in kind (5.78%), bonus (3.65%) and social security contributions (3.04%).

## APPENDIX I

### *A Brief Note on the Sample Design and the Method of Estimation adopted*

#### 1. *Sample Design*

For the Survey of Labour Conditions a multi-stage sampling procedure with industry as a stratum, with further regional strata for those industries which were found to be highly concentrated in particular regions or areas was followed. The registered Iron Ore Mines were stratified, and each centre or area of high concentration was taken as a separate regional stratum of the industry and the remaining scattered mines were clubbed together into a single residual stratum. Establishments in each regional stratum were arranged in a descending order of employment and were divided into two size groups, i.e., large mines and small mines, on the basis of the average employment size of iron ore mines in the country as a whole.

The experience of the earlier Surveys had shown that due to (i) non-availability of very recent frame, (ii) closures and (iii) changing of the line of production by establishments, considerable shrinkage occurred in the sample size. Normally, it was considered that a sample size of 25 per cent. in the case of large mines and 12.5 per cent. in the case of small mines would be adequate to give reliable results. But in order to safeguard against possible shrinkage due to the above mentioned contingencies, it was decided that a sample of 33.3 per cent. of the large mines and 25 per cent. of the small mines should be taken.

A study of the list of iron ore mines showed that in certain centres, there were only a few units in the frame. It was, therefore, felt that if the sampled units in the centre were found closed there was a danger of that centre being left unrepresented. To safeguard against such a possibility the Investigators were supplied with the list of alternative units selected on a random basis so that in the event of any sample unit being found closed the alternate unit could be covered in the order indicated in the list.

Primary sampling units, namely, registered\* iron ore mines within a regional stratum, were arranged by contiguous States and within each State by contiguous districts in a serpentine fashion so that districts formed a continuous chain from one State to another. Having arranged the list of units in the above manner, the units above the optimum cut-off point were taken in the upper size class and the rest in the lower size class. From these size groups, the required number of units were selected by systematic sampling with a random start. The frame on the basis of which the sample was selected was the list of registered mines for the year 1958.

#### 2. *Method of Estimation*

In the course of the Survey various characteristics were studied. Some of which were correlated with employment whereas there were others which were correlated not with employment but with the number of establishments. Consequently, two different methods were used for working out estimates.

---

\*i.e. registered under the Mines Act.

For estimating the totals of those characteristics which are highly correlated with employment such as absenteeism, labour turnover, earnings, etc., ratio of total employment was used as blowing up factor. For estimating the totals of those characteristics which are not correlated with employment, such as number of units paying separate dearness allowance, ratio of units was used as blowing up factor. Estimates of percentages have been arrived at by computing in each case the ratio of the estimates of the totals for the two characteristics involved.

In any stratum the estimate for the total of X—characteristics not correlated with employment is given by:

$$X = \frac{N_U - N'_U}{n_U - n'_U} \sum_i X_{iU} + \frac{N_L - N'_L}{n_L - n'_L} \sum_i X_{iL} \dots \dots (1)$$

The summation extending over all the sampled units surveyed in the stratum

- Where  $X$  = the estimated total of the X—characteristic for a particular stratum;
- $N_U$  and  $N_L$  = the number of units in the original population as featuring in the 1958 list which was used as frame in the upper and lower size groups respectively of the stratum concerned;
- $N'_U$  and  $N'_L$  = the number of units which featured in the 1958 list but were not featuring in the latest available list nearest to the period of Survey in the upper and lower size groups respectively of the stratum concerned;
- $n_U$  and  $n_L$  = the total number of units in the sample (from 1958 list) in the upper and lower size groups respectively of the stratum concerned;
- $n'_U$  and  $n'_L$  = the number of sampled units, which were found at the time of the Survey to be closed or to have changed the line of production and hence left out in the upper and lower size groups respectively of the stratum concerned;
- $X_{iU}$  and  $X_{iL}$  = the total number of X—characteristic in the i-th sample unit of the upper and lower size groups respectively of the stratum concerned.

The totals for an industry are obtained by summing up the totals obtained on the basis of the above formula for each one of the strata of the industry.

In any stratum the estimate for the Y—characteristic correlated with Employment is given by

$$Y = \frac{E_{N_U} - N'_U}{E_{n_U} - n'_U} \sum_i Y_{iU} + \frac{E_{N_L} - N'_L}{E_{n_L} - n'_L} \sum_i Y_{iL} \dots \dots (2)$$



The summation extending over all the sampled units surveyed in the Stratum

Where  $\bar{Y}$  = the estimated total of the Y—characteristic for a particular stratum

$E_{N_U - N'_U}$  and  $E_{N_L - N'_L}$  = the total employment in 1958 in the  $N'_U - N'_U$  and  $N_L - N'_L$  units respectively

$E_{n_U - n'_U}$  and  $E_{n_L - n'_L}$  = the total employment in 1958 in  $n_U - n'_U$  and  $n_L - n'_L$  sampled units respectively

$Y_U$  and  $Y_L$  = the total number of Y-characteristic in the i-th sample unit of the upper and lower size groups respectively of the stratum concerned.

The totals for an industry are obtained by summing up the totals obtained on the basis of the above formula for each one of the strata of an industry.

